

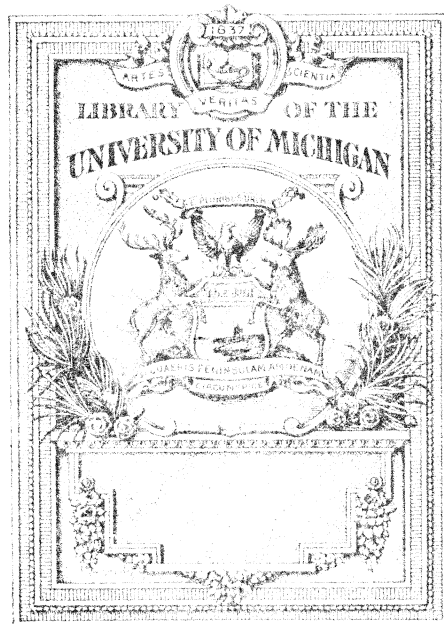


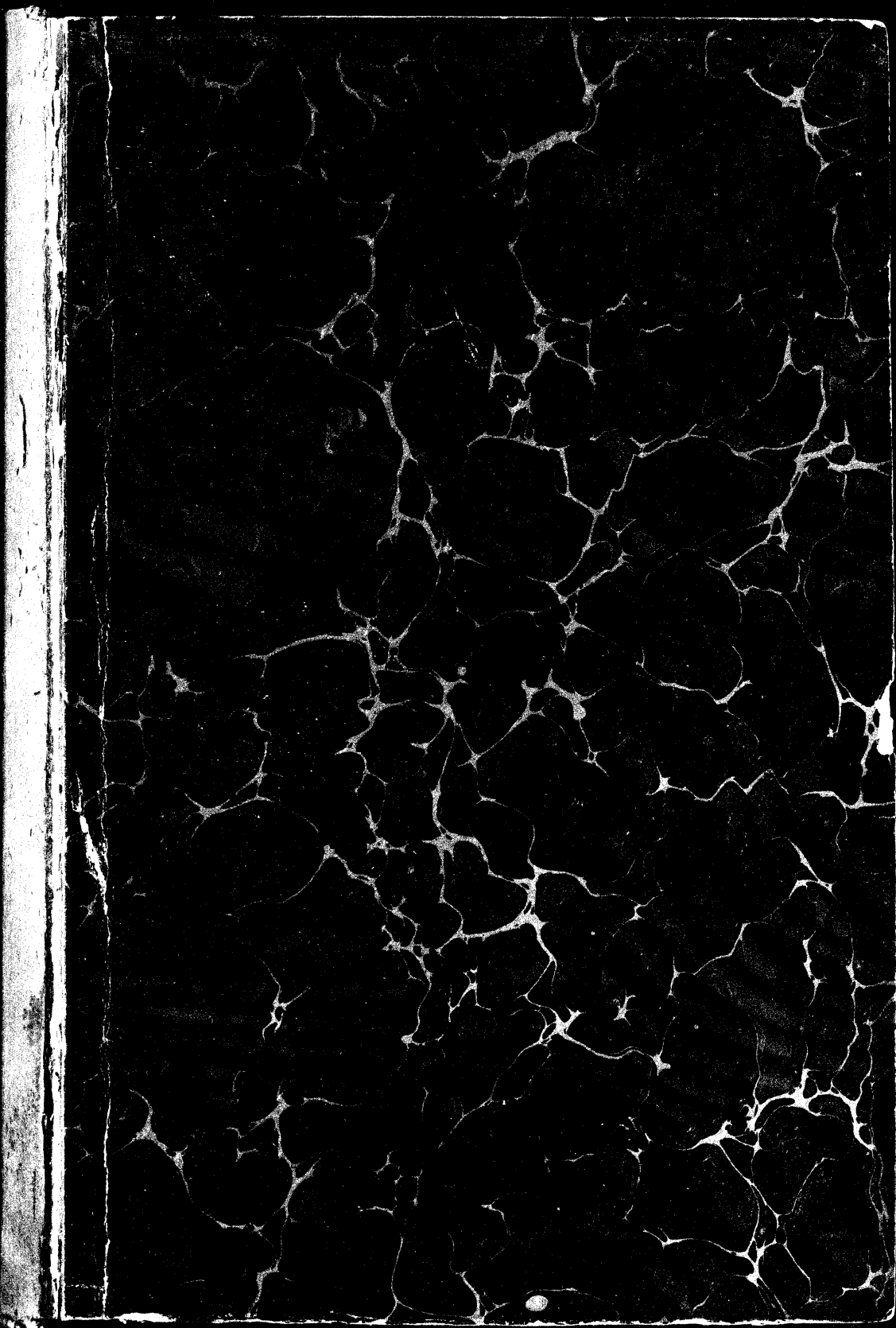
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# EXPLORATION OF NEW GUINEA.



# NEW GUINEA :

WHAT I DID AND WHAT I SAW.

BY L. M. D'ALBERTIS,

OFFICER OF THE ORDER OF THE CROWN OF ITALY; HONORARY MEMBER  
AND GOLD MEDALIST OF THE I.R.G.S., C.M.Z.S., ETC., ETC.

IN TWO VOLUMES.

VOL. II.

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# NEW GUINEA.

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## FIRST EXPLORATION OF THE FLY RIVER, 1875.

### CHAPTER I.

Travellers' tales—A welcome invitation—Surprisingly rapid convalescence—The "Ellangowan"—Her passengers and crew—Monte Ernest—Tawan—Mr. Chester shows off—The devil's house—Moatta—The houses—Skulls—Our crew.

THE Rev. Mr. MacFarlane had employed the time which on my part was passed at Yule Island, in exploring another river of New Guinea, almost opposite Cape York; that which is called by the natives Maicussar, and by the first European explorers the River Baxter.

The aim of his journey was to explore the country, penetrate into the interior, and discover whether there existed any field for that missionary labour, of which he is one of the most zealous apostles in Torres Straits.

The explorers, however, saw very few of the inhabitants, and only a sprinkling of huts and plantations, but no villages of any size, so that

the expedition did not open up the hoped-for field of labour. It was, nevertheless, interesting from the geographical point of view.

Following the course of the river, the explorers were able to penetrate a certain distance into the interior, but not so far as to lead them to hope that it could ever become a route of any importance.

While on board the "Ellangowan," off Yule Island, several episodes of this journey were related to me, and on my arrival at Somerset I read all the details of it in the Sydney newspapers.

Marvellous, and I may say fabulous, were the tales which met my eye. I found descriptions of the boa constrictor, the bird of paradise, and of a species of gigantic bird said to measure twenty-five feet between the tips of the wings, while some accounts reduced these dimensions by a third, bringing them down to sixteen feet. Tracks of buffaloes had, beyond a doubt, been discovered, and some notion existed that those of the rhinoceros had been seen.

It is easy to imagine how these stories and descriptions excited my curiosity; indeed, they almost shook my incredulity. Much did I lament my evil destiny, which had denied to me the discovery of such wonderful things, and granted it to new-comers, although I had, over and over again, risked my life and expended my money in exploring New Guinea.

Although I had thrown aside with contempt the book relating Captain Lawson's travels across New Guinea, still I actually had perused it; and



it will not be wondered at that when I came to converse with the people who had actually beheld the huge birds, and seen the tracks of buffaloes, and when, moreover, I heard of the probable existence of the rhinoceros, as asserted by Captain Moresby, my unbelief was staggered, and in my heart I begged Captain Lawson's pardon for having doubted his veracity.

I would not, and could not, believe without seeing; but still, how could I deny that which so many asserted to be true? Mr. MacFarlane, who was by no means satisfied with the result of his exploration of Muicassar, thought of exploring another part of New Guinea, and wishing to penetrate into the interior by the easiest way, made choice of the river Fly. He determined to attempt this route towards the end of November.

I had returned to Somerset from Yule Island, and, being in very indifferent health, was undecided as to whether I ought to betake myself to the mountains of Java, or go to Sydney, and recover my health before I undertook fresh travels in New Guinea, when, just at this time, Mr. MacFarlane began to make preparations for his expedition to the Fly river.

I will not waste words in describing how I longed for the chance of making one of the party, with what delight and gratitude I accepted the invitation to do so, and how completely I forgot the feeble state of my health.

The 29th of November was fixed for the day of departure, and accordingly, at 11 a.m. on that day, the "Ellangowan" steamed out of Albany

Passage, with a parting salute to the family of Mr. MacFarlane, and the few friends who dwelt at Somerset. The exploring party on board the "Ellangowan" consisted of Mr. MacFarlane, Mr. Chester, Police Magistrate of Somerset, and myself. The crew consisted of Captain Runcie, the engineer, and three or four sailors belonging to the South Sea Islands.

The Police Magistrate had with him six black troopers, armed with Sniders.

At five o'clock we anchored near an island in the Straits, called Monte Ernest, thirty miles to the north of Somerset.

This island is surrounded by polyps, which inhabit the sea, and form real forests, wherein we could admire the countless varieties of form given by nature to these little animals, which appear to have a share in all her three kingdoms.

The island, if it may be so called, consists of a lofty peak, and a sandy plain towards the north, which appears to have emerged from the water at no very distant date. This plain is in constant process of enlargement from the sand thrown up by the sea, while; at the same time, the polyps extend the area on which the sand is deposited.

The vegetation of the island is rather scanty, although fine trees are not wanting, especially on the beach on the north side.

The natives of the island are all but extinct, and the few that do still exist there are subjects, after a fashion, of a white man named Jardine, who has established a mother-of-pearl fishery there.

We agreed to pass the night in the island of

Monte Ernesto, to make our way to-morrow to the island of Tawan.

*November 30th.*—The anchor was weighed be-  
times this morning, and we steered for Tawau,  
where we arrived at 3 p.m.

The object of our visit there was to take on  
board two or three “teachers” who live in this  
island, to act as interpreters for us with the people  
of Moatta, a village where we must obtain, if  
possible, interpreters and pilots for Fly river.  
We landed, and walked to the house of the  
“teachers.”

Captain Redlich was just about to depart when  
we arrived. He pointed out to me a cross, near  
the beach, which marked the grave of one  
Williamson, an individual who probably did not  
himself know who he was, but who had travelled  
in every part of the world, and who no doubt  
would be travelling still if death had not brought  
his wanderings to a close. Although old, he  
had an extreme desire to go to New Guinea  
to make his fortune, hoping to discover gold  
there. It is owing to him that I was involved in  
a world of trouble at Somerset, when I wanted  
to procure a cutter to take me to New Guinea.  
It was he who, on the morning that I was to have  
departed, came to announce that *we* were ready  
to set forth—*he* who, by special agreement with the  
captain, was not to have a passage in the boat,  
hired by me.

He was, however, mistaken, for neither he nor  
I set forth that day. I disembarked my bag-  
gage, and instead engaged Captain Redlich’s “*Ida*.”  
Poor Williamson! He now sleeps in sight of

New Guinea indeed, but unsatisfied. Arrived at the very portals of his Eldorado, he was not destined to enter them. Now, for a little while, a cross will record where he ended his career—not who he was, how he lived, nor whence he came. Peace to his ashes!

*December 1st.*—This morning we all landed, and proceeded to the two houses which compose the one miserable village on this island. The teachers complained of theft on the part of the natives, and thereupon the police magistrate availed himself of the opportunity to display his power and authority.

The scene that ensued was serio-comic in the extreme. Having assembled the whole of the scanty population of the place, he warned them against robbing the teachers, and threatened, in case of any fresh instances of theft, to convey them as prisoners to Somerset.

The natives received his admonition with many signs of penitence—all the greater perhaps, because, in order to give weight to his words, the magistrate ordered his “black troopers” to practise firing at a mark, selecting for their target a huge ant-hill. Those wonderful constructions are as common in this island as at Cape York, and are sometimes from eight to ten feet in height, and five feet in diameter at the base. They vary in shape between a pyramid and a cone, being in some instances so pointed at the top that they look like obelisks. It is remarkable how, in the space of a single night, the little insects are able to repair any ravages wrought in their dwellings by ruthless hands. In the present instance who

can tell how many fell victims to the bullets of Mr. Chester's black fellows !

It is worthy of remark, that in New Guinea I never saw any ant-hills which attained the colossal proportions of those in Tawan and at Cape York. Of those which I measured in Yule Island none were more than two or three feet high. Probably the ants of Cape York, and of the islands in Torres Straits, have not yet succeeded in making their way to New Guinea, where, however, they are worthily represented by many other species, equally obnoxious to man.

During my visit to the village my curiosity was strongly excited by what the teachers called "the devil's house," of which the following description will give some idea. Two puppets representing men, made of straw, are placed at about eight paces from the front of a sort of hut, made of branches and leaves. In the interior, and outside near the entrance, hang strange ornaments, in the shape of the eggs and entrails of turtles, which it is needless to say emit a horrible stench.

On one side, near the entrance, there is a wide platform, supported on stakes driven into the ground ; this is covered with the bleeding heads of turtles, which are no less offensive than the entrails and the eggs.

The interior surface of the hut was covered with the bones and skulls of the same animal. On the roof are putrid heads ; and all around, eggs and entrails hang in festoons. I also observed inside the hut two human heads, partly painted red, and half covered with the skin of a large sea-bird with white plumage. I was told that

these were the skulls of two famous turtle-hunters, held in great veneration by the natives, who present them from time to time with offerings of food, and also, by smoking near them, enable them to enjoy the fumes of the tobacco which they esteemed so much during their lives.

To complete the description of this devil's house, I must add, that all the shells of the turtles killed in the place are placed in one long row, extending from the little temple to the beach. Perhaps by this the natives intend to signify that the turtle is sent by a sea-god to their island, to benefit the dwellers in it, and also wish to pay homage to the great hunters deceased. It is strange that, notwithstanding that these natives have more or less embraced the faith of Christ, they still adhere to their superstitions, and that the teachers, far from extirpating these superstitions, are even brought, to a certain extent, to believe in their efficacy.

I saw a great number of black lizards along the paths leading from the village to the other parts of the island. At midday, taking with us two of the teachers, and a youth belonging to the island, we departed for Tawan, and cast anchor in sight of an island called Saibai, a few miles distant from Tawan, and also from the coast of New Guinea.

While Tawan is composed, if I may be allowed the expression, of three peaks, all more or less lofty, Saibai is a low-lying plain. In the centre are fresh-water marshes, abounding in numerous species of aquatic birds, and among them ducks and pelicans in great numbers. During the

night a violent tempest arose, and we had a deluge of rain, accompanied by thunder and lightning.

*December 2nd.*—Leaving our anchorage early this morning, we arrived towards midday at a short distance from the mouth of a little river called Kataw, near which lies the village of Moatta, where we landed at 2 p.m.

A crowd of curious people, principally composed of women and children, stared at us from the houses, while some thirty men came forward to receive us.

The first thing we remarked was, that a number of the men were painted yellow and white, while many of the women were daubed from head to foot with mud. We were told that this signified mourning for the dead. A strange fashion if you will, but perhaps not more so than many European customs. At Yule Island, fashion dictates that the natives shall show their grief by painting themselves black. The women of Moatta add to the paint a curious kind of scarf made of a great number of cords, which, descending from the neck both before and behind, covers the body almost down to the feet, and is gathered in and bound over the hips with a girdle of cord. Their arms, and legs below the knee, are covered with bracelets and anklets similarly composed of cords.

The village consists of five or six houses, built on piles of no great height. Each house is inhabited by several families, and is divided in the middle into two compartments, right and left, by a sort of corridor. These two compart-

ments are farther sub-divided into several smaller ones, so as to accommodate the number of inmates. We found the interior of the houses very dirty; and as light only filters in by the two little doors, which are a long way from one another, and, as everything is blackened by smoke, a stranger entering these abodes, and unaccustomed to their obscurity, can hardly distinguish anything. These houses, which are altogether different from those of Hall Sound, remind me of the habitations of the Papuans of the north-west.

They have two fronts, one facing the sea, which is at no distance from them, the other facing inland.

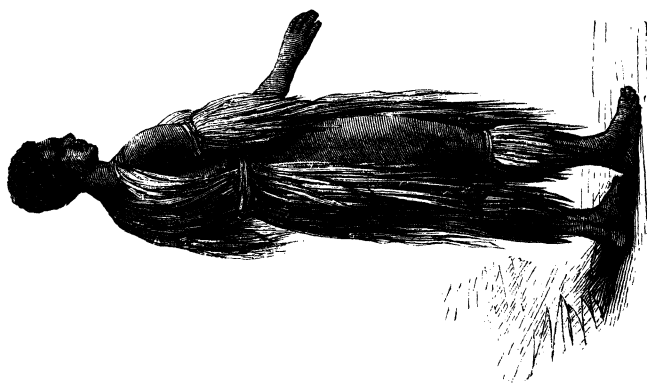
The natives showed no inclination to allow us to visit their abodes; the women especially exhibited their displeasure, and it was ridiculous to see them retiring among the ashes of their fireplaces to escape our curious observation. Our attention was strongly excited when, on going out by the door which looks inland, we saw about thirty human heads, suspended like trophies—a proof of the valour of the master of the house, Maino, who was no other than the pilot and interpreter of whom we were then actually in search.

The jawbones were removed from the skulls, and we saw them in a corner, ornamented with feathers, and so arranged as to be used as bracelets, which are called *bago* by the natives. I remember that at Orangerie Bay also the women used human jawbones as ornaments.

Here we also saw a devil's house for tortoises, but it was of much less imposing dimensions than that of Moatta.

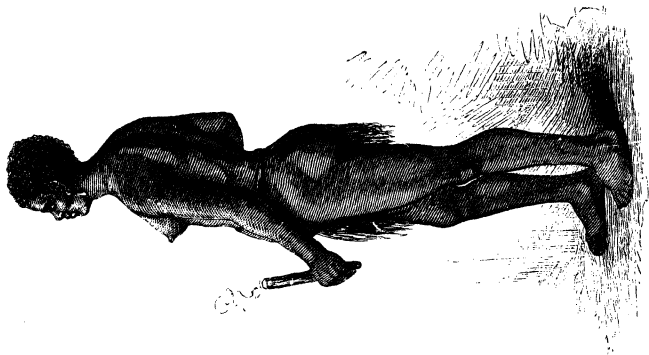






Mourning dress of the women at Moatta.

*Vol. II., p. 9.*



Carrying a fire-stick to the plantation.

*Vol. II., p. 11.*

The natives possess large plantations of coconut, palms, yams, and bananas, which are generally surrounded by a high stockade to preserve them from the incursions of pigs, both wild and domestic; of the latter animals we saw great numbers in the village.

The natives, besides being agriculturists, are much given to fishing; and while we were on the island several canoes arrived, laden with very fine fish. The proximity of the Warrior coral bank facilitates the fishing, and the people of the place live a great part of the year entirely on its produce. I observed that many of the natives use wooden bolsters of a strange construction, made of the wood of the root of mangrove, and representing curious animals. I saw one which represented a reptile, another a kind of siren—that is, a reptile with a human head. The natives call these bolsters “muci.”

Moatta is often visited by fishers for mother-of-pearl from Torres Straits, and the natives trade with them for iron implements, cloth, and other European specialities. Although they themselves do not cultivate tobacco they are greatly addicted to its use, and prefer it to everything else as an article of barter.

The people I saw were generally good-looking, and of lofty stature, the women especially being tall and robust. The men are usually perfectly naked; the women, however, cover themselves with a little grass. Without being absolutely black, their skin is very dark, although I saw some of them who were almost copper colour. I was much struck by the varieties of type which

I observed, and especially by the likeness of some of the adults and old men to Arabs. Their hair was for the most part short, and one can easily see that it is equally distributed all over the head; when, however, they wear it long it curls, and forms separate ringlets, four or five inches long. After their fashion they pay much attention to their coiffure. The ringlets are quite separate from one another, and each is carefully smeared with earth. When the hair is not long it looks woolly; and until it is examined when cut close, it would be supposed to resemble that of the negro, but in reality it is quite different. The use of earth, and also of ashes, gives a ragged appearance to the hair, and changes the colour of it. Many of the people are affected with skin diseases, especially with that known by the name of "cascado;" and ulcer in the leg is a common malady. The children, on the other hand, appeared to me to enjoy excellent health. Their limbs are very slender, and their stomachs extremely protuberant, which I have observed is often the case with people who live under conditions similar to theirs.

At four or five hundred yards to the west of the village, and not far from the sea, we saw a place where the natives bury their dead. The graves are enclosed by a strong palisade. A quantity of bananas and cocoa-nuts hung from a stake inserted in the palisade. In addition to these provisions a bow and some arrows were also suspended.

It was impossible to obtain any of the skulls which we saw hanging up in front of the doors of

the houses, and which, we were told were those of people who live further inland, and are called by the inhabitants of Moatta by the English name of "bushmen," that is, men of the forest. These people are considered by the coast natives as an inferior and barbarous race.

On going from the front of the house to a small open space in the rear, shaded by a few cocoa-nut-trees, we found that the natives had their bows and a quantity of arrows in readiness, showing, perhaps, that they did not put much confidence in us. Many of them being requested to lay aside those symptoms of distrust, hid their bows and arrows in the grass or behind the bushes.

It was settled that Maino and Auta should accompany us to the Fly. The former is the head man of Moatta, and the second is the head man of Ture Ture, a village lying four miles to the east of Moatta, on the east coast, and which is covered with cocoa-nut-trees.

*December 3rd.*--Our crew is complete to-day; it consists of four white men, one Chinaman (the cook), six troopers, two teachers, and four sailors.

## CHAPTER II.

Aground—Afloat again—Dalrymple Island—A gigantic tree—Maino as a *raconteur*—Kiwai—A delightful voyage—Kiwai—Para—The Natives—Terrible diseases—A war-like demonstration—A stampede—The Italian and the English flags—*Entente Cordiale*—Nutmeg woods—Attack Island—Pigeons—A new species of goura.

QUITTING the waters of Moatta, we tried to make the Fly, passing to the north of the Warrior Reef, but we ran aground, and were obliged to await the rising of the tide. In two hours we were afloat again, and then made up our minds to pass to the south of the Reef. We are now at anchor for the night off Warrior Island. A strong gale of wind made our voyage of to-day far from agreeable.

*December 4th.*—Towards 2 p.m. we came to an anchor close in shore on the west side of Dalrymple Island, where we were in fourteen fathoms of water. This island is nothing but a bank of sand upon a foundation of madrepore. A ring of dense vegetation encloses the island. The interior of it is covered with long thick grass, while here and there a solitary tree rears its head.

I remarked a large tree of a species common enough in the islands of the Straits. I have never, however, seen a larger specimen of it

than this, which I may call gigantic—not so much with reference to its height, as to the great expanse of its branches: they overshadow a space on which 300 people could stand.

The island, however, presents a very miserable appearance, either from prolonged drought, or from the poor nature of the soil. Perhaps owing to the scanty vegetation, and to the sultry time of day in which I landed, I saw very few birds—a few pigeons (*Carpophaga spilorrhoea*), a *zosterops* and a *ripidura*—all of which I had seen at Cape York, but no other species.

The island appears to be infested by small rats, which at sunset jumped and scampered around me in every direction, in the long grass and among the fallen leaves. I found them so difficult to catch that I was forced to have recourse to my gun to procure a couple of them. A large kind of spider abounds to an extraordinary extent. This insect constructs its web from one branch to another, at the height of a man from the ground, by which it causes the greatest inconvenience to those who walk in the island. In the middle of the web there is always a withered leaf, twisted round so as to form a small tube. The interior of this is covered with a very fine tissue, the work of the spider, who lurks therein. When an insect becomes entangled in the treacherous web, the hermit spider issues forth from his lair, seizes it, and takes it back with him to be eaten at his leisure.

I obtained from the natives a "*Monitor punctatus*," and a fine *buprestide*. I killed enough fish with dynamite to supply the wants of all the crew.

*December 5th.*—This morning we set forth in lovely calm weather, and towards 4 o'clock anchored a few miles from Bampton Island, which is only about half a mile from the coast of New Guinea, called by Maino "Daudai," while to the island he gave the name of Parama.

I saw numbers of sea-serpents, some of them from five to six feet long, and also shoals of dolphins, which surrounded the ship, as if to challenge us to a trial of speed. They followed us for some hours.

We spent a great part of the day in obtaining information from Maino respecting the country which we were about to visit. He described to us very cleverly the habits of the kangaroo, its manner of moving and sleeping, and its mode of giving the alarm to its fellows when taken by surprise, by stamping on the ground loudly with its hind feet. This produces a curious noise.

He told us that crocodiles abound; and that the natives often fall victims to them. He described to us the manner in which the brutes seize their prey and drag it to the bottom of the water. According to Maino, the crocodile, after having laid hold of his victim with his teeth, squeezes him between his legs, before he begins to devour him.

Of the people inhabiting Kiwai, a large island at the mouth of the Fly, he told us they were very numerous, that they are much given to cultivation of the soil, and that they possess extensive plantations of cocoa-nut-trees. He added, that they build a great many canoes, which they sell to the people of Moatta, who again sell them to the people of the other islands in Torres Straits.



*December 6th.*—We sailed along slowly a great part of the day, between the island of Bristow (Mibu) and Kiwai. We saw a large village, of about twenty houses, in the midst of a forest of cocoa-nut-trees.

Up to midday, however, we had not beheld a single native or a canoe. But when we approached the village (Kiwai) we saw some columns of smoke. Maino told us these were to give notice of the approach of strangers.

The farther we proceeded the more we were persuaded that we were entering a large river. Fresh islands rose before our eyes, as if by magic, as we sailed along. About half-past three we cast anchor in front of a village called Auti, and whichever way we turned we discovered islands and islets clothed with dense vegetation.

Maino continued to be the most entertaining person we had on board, and plumed himself much on the interest which he saw he excited. He described to us most vividly how easy it is to cut a man's head off with a knife made of bamboo; what a slight matter it is to sever it from the shoulders with a mere turn of the operator's wrist! He then informed us that he himself had cut off thirty-three heads in this manner; and to make his words good, he took out of his bag a collection of pieces of wood and old tips of arrows, which he arranged before us in a row. Every one of these represented to us a murder—to him a deed of valour. I wanted to obtain the precious collection, but he contemptuously rejected the equivalent which I offered him in exchange for it.

On the 4th there appeared two canoes following us; and aided by a favourable wind and strong rising tide, they soon came up with us. They contained natives of Moatta, who had taken the course recommended to us by Maino, i.e., that of coasting between New Guinea and the islands. Towards evening other canoes appeared, manned by natives carrying small branches, which they waved, possibly in token of friendship, but they did not approach us closely.

*December 7th.*—To-day, after advancing a few miles, we were stopped by shallow water in front of a village in the island of Kiwai, called Para. Many natives came on board, from whom we obtained bananas, shells, and yams in large quantities; we also purchased some bracelets and ornaments made of grass dyed red, which they wear in the lobe of the ear, which is perforated and elongated to hold them. The natives of Moatta substitute for the grass thus used by those of Kiwai, red wool which they obtain from the oyster fishers. The lobe of their ears is artificially drawn out two or three inches, and often reaches the shoulder. They have the nostrils pierced, but wear no ornaments in the nose. In general they were without ornament; and I observed that some of them, before coming on board, laid aside the mother-of-pearl trinket which they generally wear suspended from the neck.

They are all naked. Two appeared to be circumcised, but a nearer investigation convinced us that this was not the case. Our curiosity seemed offensive to them; and perhaps at that moment

they perceived for the first time that they were naked, and sought to cover themselves.

Thirty-five natives came on board to-day, of whom eleven were afflicted by a disease of the scrotum, which was extraordinarily swollen, in some instances hanging down to the knees. Some had also swollen legs; so that this may have been elephantiasis, or a disease of a similar kind. In certain cases I am inclined to believe that the malady was hernia. At any rate I observed that the sufferers were not in the least incommoded by their ailments, but leaped on board with as much agility as the others.

It seemed to me that these people's legs are long in proportion to the length of the body. Many have short hair; if long, it is parted into ringlets and smeared with earth, as in many islands of the Straits. Here, however, I noticed the hair was that of the genuine negro, equally distributed all over the scalp. As a rule these people have narrow foreheads, protruding brows, prominent cheek-bones, the nose strongly marked and aquiline, small eyes, of very dark chestnut colour, and with a bluish tint towards the outer edge of the iris, whilst the white is often deeply bloodshot and yellowish. Their lips are small and not turned back, their foreheads receding, their skulls pointed, their teeth strong and white, the lips dark purple. Many have tattoo marks upon or behind the shoulders, much resembling those of the Australians. They are slight-limbed, but do not appear wanting in muscular strength. They are afflicted with cascado and other skin diseases. They are

not very hairy, and let their hair grow according to nature, and almost all have thick, though not long, beards. We saw neither women nor children.

Their canoes are of simple form, and have a paddle made of three very small tree stems.

The head man of Para went on shore about 2 p.m., promising to bring back a pig which we were to buy; but he did not keep his promise, and we saw him no more. After 3 o'clock not one native came near us, although we saw several canoes paddling up the river close to land. The natives and Maino tell us we cannot go further because of the shallowness of the water. Still we do not give up the hope of continuing our voyage to-morrow, either by finding a channel, or by the rising of the tide.

In the evening, as at Yule Island, I saw thousands of Torres Straits pigeons (*Carpophaga spil-torrhoa*) pass by us. They came from the east, and flew westward. The abundance of these pigeons is quite extraordinary. We saw many Ibis, but have not yet seen the gigantic birds of Maicussar.

*December 8th.*—At half-past seven we weighed anchor, and proceeded, discovering new islands continually on our right and left. Notwithstanding the assurance of the natives that we should not find depth enough to advance, we found to-day a channel more than five fathoms deep. Having passed the furthest point of Kinai, we made for a long island in front of us. When we were only about 1500 yards off it, we saw five canoes, two of which were very large, each con-

taining thirty or forty men. Maino immediately told us they came to fight us. The canoes filed past us at a discreet distance, coasting along the bank to our left; but Maino persisted in his assurance that they intended to show fight, and bade us notice that they carried no sail, and especially that the men were adorned with feathers and large shells, either round the neck or at the loins. Nevertheless we soon lost sight of them, either by distance, or because the form of the coast hid them from view. A little later, however, a small canoe, containing five men, left the shore and came towards us, remaining at about a gunshot's length of us. Maino, as interpreter, invited the men to approach, while we made every possible conciliatory sign to them. But their only reply was to command us to return whence we had come. Meanwhile other canoes, of which two were very large, and contained each about fifty men, appeared on our right. They rowed very well, in even time, and neared us with extraordinary speed. All were more or less adorned, and some had the head covered with a curious little helmet. They yelled and gesticulated, but it was impossible to understand their desires, although easy to divine their intentions, and we were soon persuaded that they really purposed to attack us. Those who were not rowing stood erect in the canoes, holding their bows and arrows in readiness. There were about 250 of these demons, thus prepared to assail us with fury, while we could only count on fifteen men for our defence; but being well provided with fire-arms, we had no reason to fear the issue of the combat.

The readiest expedient to adopt seemed, however, to prevent the natives from approaching us more nearly, and hence avoiding the necessity of giving or receiving injury by the use of arms.

We fired a gun over their heads, so near that they could hear the ball whistle; but this produced no effect upon them, and they continued to advance boldly. Then we decided on convincing the natives that a nearer approach would be perilous, and with MacFarlane's permission, I took aim at the prow of the nearest canoe, where there was a small unoccupied space. Two heavy balls from my rifle struck the canoe at the point aimed at, and this sufficed to damp the ardour of our assailants, who at once rowed off with more vigour than they had shown in coming towards us. It was not a retreat, but a flight; and that they might not think of stopping short, a few gun-shots accompanied them for a considerable distance. They came indeed to defy us, but found themselves defied, and were more than anxious to abandon bow and arrows for the oar.

The canoes on our left and in front, before arriving on the line of battle to which they were evidently directed, having seen the reception given to their friends, dared not second their attempt. In a few minutes these also disappeared, leaving our passage free.

At 3 p.m. we resumed our way, and shortly afterwards we found ourselves followed at some distance by two canoes. A few gun-shots sent in their direction sufficed to stay their progress, and they disappeared.

We saw more plantations of cocoa-nuts and

bananas, and discovered new islands ; and at night we anchored near to one of these, on which we bestowed the appropriate name of Long Island. The river here seemed to us more important than we should have expected near Kiwai, and our hopes of penetrating into the interior of the country grew apace. The Rev. Mr. MacFarlane gave permission that at the mouth of the river the Italian flag should float beside that of England. I am grateful to him. I feel great satisfaction in seeing the flag of my country in company with one which can boast of having borne civilization to the most remote and barbarous regions of the earth. To-day, however, it happened, by some strange accident, that during our half-comic battle the Italian flag alone waved on board the "Ellangowan."

*December 9th.*—Having started about eight o'clock this morning we stopped, after a course of eight or ten miles, near a small island, where sago-palms abound, and also a tree of the nutmeg kind, producing a large fruit. These trees grow to a great height. I noticed that a large number near the shore, and some further inland, were broken towards the middle, as if they had been injured by a recent storm. Other giant trees are even blown down, and completely uprooted. The object of our halt at this island was to provide wood fuel for our engine, and thus spare coal. Near the island, at about thirty yards, we cast anchor at ten fathoms.

The captain and men went on shore to cut wood, and I accompanied them in the hope of finding insects whilst they were thus engaged.

The operation was, however, hardly begun, when we heard the hissing of the engine, a danger-signal which summoned us on board. Then ensued a race to our boat, marked by some laughable incidents, for the trunks and branches of the overthrown trees presented barriers and hindrances to our retreat. Above all, our way was obstructed by the roots of the trees, which are in a great measure uncovered, as in the mangrove woods. This is probably due to the frequent overflow of the river, which partly washes away the soil. In fact one might, looking only at the roots of these trees, imagine oneself among mangroves, whereas no such tree is there. As it is not natural to the myristica (nutmeg) to have its roots uncovered, I can only conclude that in this case the trees of that species have adapted themselves to their local condition.

On reaching our boat, we descried in the distance two canoes, containing about ten men. Either for fear of us, or for obtaining of reinforcements, they immediately made for the opposite shore. After an hour and a half or two hours six large canoes, crammed full of men, armed and decorated for war, were seen coming up to us. The smaller canoes remained at a greater distance, but ranged in the same order as the larger. From their manner of approach it seemed to be their purpose to land on the island, whence, protected by the dense foliage, they could assail us with arrows. It was judged prudent not to let them carry this plan into execution; and when they arrived in front of us, at a distance of about two hundred and fifty yards, a few gun-shots,



directed so as to frighten but not harm them, made it clear that we disapproved of their project. Our first shots did not, however, avail, it seemed as if they would make a final attempt to reach the point of the island, and thus place themselves in safety. But one of two better-aimed shots at a canoe made the natives decide on flight. There was danger, however, that they might go and entrench themselves on some other part of the island; and to prevent this, Mr. Chester descended with his troopers into the boat, and followed the natives, who made in terror for the right-hand shore, and, having reached it, abandoned arms and canoes, and fled into the forest. Mr. Chester, as a trophy of victory, towed one of the deserted canoes to the "Ellangowan," and it was then broken up for fuel for the engine. This canoe was made of a large tree trunk, neatly hollowed, without a paddle, and was about sixty feet long.

At night a blue light was kindled, and a rocket discharged in the direction of a village, probably inhabited by the people who had shown us fight. The island near which we cast anchor was named Attack Island.

*December 10th.*—Again this morning we set forward at half-past eight. Passing by a large plantation of bananas, we distinctly saw the village inhabited by our assailants of yesterday. Some canoes with a few men in them followed us at a distance, and made signs as if to attract our notice. The vessel slackened speed, and the natives were invited to approach, but in vain. At the same time, we could see with a telescope a

large number of canoes full of men, armed and ready for fight, rowing along the left shore, as if intending to cut off our advance. They followed us thus more than ten miles.

Finding that nothing decisive was likely to occur, we augmented our speed, and soon left them out of sight behind an island.

After we had made twelve or fourteen miles more, the grandeur of the forest attracted us. We proposed to stop and cut fresh wood at a point where the somewhat elevated shore promised a supply of good dry timber. We were on the point of dropping anchor, when the yells of a multitude warned us that we were in the neighbourhood of savages; there were, however, neither houses nor plantations, nor men to be seen. Withdrawing to a little distance and towards the opposite shore, we cast anchor. Before turning in, we kindled a blue light, and let off a rocket.

*December 11th.* — This morning we were awakened by the shouting of a crowd, and by the noise of the war-shells. After a while there appeared on the right bank of the river some natives armed with bows and arrows. They wore white necklaces, a piece of metal on the chest, and another at the loins, the head being adorned with red and white plumes—these last belonging to the *Paradisea Raggianna*. The first party was joined by many others, until more than a hundred were assembled. They ran along the shore yelling and gesticulating, affording us a very curious and interesting spectacle.

Then two canoes appeared on the scene, and some natives placed themselves in these, clearly

for the purpose of making a recognizance. It was thought best not to let them approach; and so before they left the shore some gun-shots induced them to abandon their canoes, and retreat back from the beach. They did not, however, desist from their yells and cries, to which our crew responded, while a distinct echo repeated sound for sound. We were not otherwise disturbed; and at the rising of the tide we pursued our way, which is rendered more and more interesting in our eyes by the numerous islands we discover, by the beautiful forests rich in palms of many species and elegant forms, by the lovely ferns and orchids, and the thousands of creepers hanging from the branches of the gigantic trees.

The abundance of the nutmeg-trees continues, and there is no doubt that these could be utilized. Now they serve as food only to the multitude of pigeons that inhabit these forests—to the cassowary (of which I saw numerous tracks to-day in the forest), not to speak of many other carpophagus birds.

During the voyage we could discern neither canoes, nor men, nor villages, but one continuous mass of thick vegetation, so that we conclude the country is uninhabited.

At night we cast anchor in a channel formed by an island and the right bank of the river.

## CHAPTER III.

Valuable birds—A crocodile—Scarcity of provisions—Continuous rain—"Ellangowan Island"—Fireflies—My hopes of seeing the monstrous birds vanish—I solve a riddle—Skin disease and a cure—A probably poisoned arrow—Aground—An attack—Human skulls—At sea.

*December 12th.*—As this was Sunday we rested. The salted meat we brought from Somerset having spoiled by keeping, I set out with my gun to obtain some birds for food. Although the place where I landed was not very promising in this respect, I have no reason to complain of the result of my attempt, since, in addition to supplying the larder, I succeeded in obtaining some birds of valuable species. Among these I reckon a gowra, which differs from the other three species with which I am acquainted, and is undoubtedly of another kind. It is like the crested gowra, but differs from it in having an ashen-coloured instead of an iron-grey back.<sup>1</sup> I obtained a small pigeon, which I now met with for the first time in New Guinea; from its diminutive size, it is called *Ptilopus nanus*. Other pigeons, large and small, frequented the same tree

<sup>1</sup> This large pigeon was, in fact, a new species, called *Goura sclaterii*.

—a fig-tree—and I shot some beautiful specimens of the *Ptilopus aurantiifrons*, of the *Carpophaga Mullerii*, and of the *Carpophaga Zoëæ*. Of the *Talegallus fuscirostris*, which we heard all the night through, screaming in the forest, I killed two, which, added to the pigeons, were an acceptable addition to our table. On the same tree where I killed the greater part of the birds to-day, I also killed a serpent of a somewhat common species—the *Dendrophis punctulatus*. Parrots are represented by several lory, a very small *Cyclopsittacus*, and by the large black cockatoo, *Microglossum aterrimum*.

December 13th.—To-day, while the men were cutting wood, they brought down a green tree, from which exuded a kind of reddish scented gum, by which a great number of insects, some of which I collected, were attracted. Among them I notice a fine cetonide, *Lomaptera Xanthippus*.

Having completed our storage of wood, we continued ascending the stream, without obstacle of any kind. We saw a crocodile, and on account of the novelty of the sight—this being the first we had encountered—we gave the name of Alligator Point to the place at which the animal appeared. Towards evening we found ourselves at a point where the river widens considerably, so as to look like a small lake, and we enjoyed a magnificent sunset. I hear them speaking on board of turning back, lamenting the scarcity of provisions, and other grievances; some of the men are, besides, suffering from fever. The continuous rains, and the arduous daily toil of cutting wood in the forests, seem to be the principal causes of the

fever. It seems to me, however, that a high road to the heart of this country having been opened before us, we should go forward, and not abandon our enterprise just when we have a good hope of carrying it to a happy issue.

*December 14th.*—To-morrow is fixed for our return, but for this one day it was decided that we should go forward, and we ascended the stream for about twenty miles, stopping near an island, which, being the farthest point reached by the "Ellangowan," was called Ellangowan Island. When our anchor was lowered close to the right bank, we were somewhat surprised not to find ground for the anchor with a chain of seventeen fathoms. To find anchorage we had to move lower down, and towards the left. Nothing remarkable occurred during our voyage. The country seems uninhabited. This evening, at dusk, there passed us thousands of *Pteropus* (flying-foxes), which often skim and touch the water. I failed to ascertain whether they did so to drink, or to pick up some fruits floating on the stream. I occasionally heard the note of the *Paradisea Raggiana*, and I saw two full-grown male birds flying over a lofty tree. I landed at once; but although I fired three times, I did not succeed in killing a bird, so high was the tree they were on. The prize of my labours to-day was a fine kingfisher, which somewhat resembles the *Cyanalcyon nigrocyanea*, and I am in doubt whether or not it is the actual species.<sup>2</sup> I shot some fine specimens of the beautiful *Tanysiptera galatea*, which with its red beak, the bright blue of the head, and the two

<sup>2</sup> Distinct species, *Cyanalcyon stictolaema* n. sp.

long feathers of the tail, attracts the observation of the sportsman in the forest, where, on account of the thorny nature of the soil, he seldom finds any other kind of bird. I obtained two or three small reptiles, namely, a *Heteropus fuscus*, a *Gymnodactylus arnuxii*, and the common *Euprepes baudinii*. At night a splendid spectacle was afforded by millions upon millions of small fireflies, which literally illuminated two enormous trees, whilst thousands filled the air. The sight of their fairy flight hither and thither over the surface of the tranquil water, recalled the fairy tales which I had heard many a time in my childhood.

Another council was held this evening, when it was decided that to-morrow our prow should be turned to re-descend the river. The decision is most unwelcome to me.

*December 15th.*—At half-past six I went on shore to gather something more for my collection, if I may so call the few objects amassed during the journey. Mr. MacFarlane and Mr. Chester, with some men, went meanwhile in the boat to explore Ellangowan Island. I failed to obtain any valuable bird, for, on account of its commonness, I do not so regard the beautiful *Cicinnurus regius*, of which I secured several fine specimens. I saw many fine butterflies, most of which I do not remember to have seen elsewhere; but as I had no net, I did not give them chase. Wandering in the forest, I came upon an old ruined village, in which are the remains of five or six houses only. These are about thirty feet long, and fifteen broad, made of bamboo and small trunks of

trees, and covered with palm-leaves. Their floors are not raised more than a foot above the level of the ground; but around the dwellings a ditch, about two feet broad and equally deep, had been dug, so as to make the soil drier. I do not remember to have seen anything similar in the other parts of New Guinea that I have visited. I found an arrowhead made of bamboo. There must have been some land cultivated around the village, and I saw some plants of wild banana. Maino took some of these with him to Moatta. In front of the houses a plant has been sown with the seeds of which the natives make their ornaments. This is known in botany under the name of *Coix lacryma Jobi*. While the men were cutting down an old tree, they discovered the hive of a small bee. The honey was almost black, and the wax was reddish. Some of our party liked it, but it had, to tell the truth, a very bad smell. The bee is very small and black, and has a particularly offensive odour, the insects being attracted by the smell of a tree similar to one I mentioned a few days ago. To-day I again obtained some specimens of *Lomaptera Xanthippus*.

At one we were summoned on board; at half-past one the "Ellangowan" advanced speedily towards the mouth of the river. A world of hope died within me. Arrived at the threshold of the enchanted land, I am doomed to retrace my steps! to turn away without seeing one tiger or ape! without having seen a trace of the buffalo or rhinoceros! without having seen any monster bird or boa constrictor! Either travellers who describe



such wonders are carried away by their imagination, or fortune has not stood my friend.

I have diligently examined the foot-prints of the wild pig and the cassowary in the forests, but although I have found some so large as to appear to belong to much larger animals, yet, after the closest investigation, I have been forced to the conclusion that wild pigs and cassowaries only were in the case. I satisfied myself that the tracks had been impressed when the earth was very soft, that the foot had sunk deep, and in uplifting itself had much enlarged the hole made by its entrance. Then, by the sinking of the water the dry earth contracts, and the foot-prints become even larger. Rain or inundation fills them with water, and thus they remain a long time. He who lights on them by chance may wonder at the animal who leaves such marks, and may make mention of it in his story; may take measurements, and relate how one of the foot-prints was a hand's-breadth across. That is all very well, but it does not avail to change a pig into a buffalo, or a cassowary into a rhinocerus. As to the gigantic bird of Baxter, on the Maicussar river, I have ascertained that it was a *Buceros ruficollis*, which makes a peculiar noise in flying. This sound, especially when several birds fly together, resembles the noise of a steam-engine; and I succeeded in convincing two or three discoverers of the great bird, who are now on board the "Ellangowan," of that fact.

*December 16th.*—Again to-day I accompanied the men ashore, but obtained little or nothing for my collection.

For some days past all on board have complained of a violent itching in different parts of the body, without finding out any cause for it; but to-day an almost microscopical insect was discovered, which has either attacked us in the forests, or has been carried on board in the skin of the gowras and other birds, which mostly live on land. I found that certain red lumps on the skin of these birds are actually formed of hundreds of these almost invisible creatures. The root of each feather becomes a pleasant abode for them. They must also possess immense productiveness; in fact our bodies were entirely covered with them. It was useless to wash ourselves, either with hot water and soap, or acid, or eau-de-Cologne; but to-day we had recourse to a new expedient, that of washing ourselves with petroleum. At Yule Island I found this process efficacious in similar cases, and also that the ulcer produced by the disease called cascado dies away after repeated applications of the oil. I also tried it at Andai in 1872, and at Yule Island this year.

We continue to descend the river, but without observing anything noteworthy.

*December 17th.*—We resumed our downward course this morning at half-past seven. When we arrived at Bowling Point four men in a canoe appeared, and after following us some distance shot an arrow after us, which only reached half way. To prevent a repetition of the act we sent a shot so near to the canoe that the natives thought it neither useful nor pleasant to await a second, but took to hasty flight.

At three o'clock we anchored before a small

plantation of bananas. A man in a canoe advanced, and by many signs of friendship we succeeded in inducing him to come nearer. I then got into the boat which we had in tow, and prevailed on him to approach close enough to receive some presents from my hands. He had his bow and arrows ready at the bottom of his canoe, and I persuaded him to sell me some of the arrows.

Among them was one of bamboo, painted red, and perhaps poisoned, for the owner was very unwilling to sell it, but at last consented to do so in exchange for some valuable barter. In handing it to me he was careful to turn the point away so that it should not touch me. I asked him by signs whether it was poisoned, and he by signs answered Yes. I repeated my question regarding all the rest, and received an answer in the negative.

This is all I know concerning the poisoned arrows used by the natives of New Guinea. Though many travellers tell of poisoned arrows, I believe none do so from experience, or have been able to obtain certain information on the matter.

Notwithstanding my reference to the bamboo arrow purchased to-day, I am not sure whether it is poisoned or not, though there is much reason to believe it is. These negotiations concluded, the man returned to land, and I to the ship. A little later three or four other canoes, containing men apparently unarmed, came alongside, bringing cocoa-nuts and bananas, for which we exchanged knives and cotton wool. It seems we have at last

succeeded in establishing friendly relations with the natives.

*December 18th.*—We started this morning at nine, and a little later seventeen canoes came towards us. Apparently the natives were unarmed; they wore none of those decorations which they assume for war. Still we prepared for an attack, fearing treachery. They advanced, however, crying, “Miro, miro!” meaning “Peace, peace!” while they showed us bunches of bananas. We slackened speed, inviting the natives to approach and exchange wares. This, however, they neither intended nor desired, and they continued to follow us.

We soon perceived that they were trying to surround us. Other canoes appeared, awaiting us at different points; and we were convinced that a concerted plan had been laid. The steamer was put to full speed, and we endeavoured to avoid coming into any collision with the natives, in which we succeeded. However, they rowed after us mile after mile. At last our patience was exhausted, and we resolved to check them by frightening them with an explosion of dynamite. No sooner said than done. An explosive cartridge was thrown into the water with a long train of powder, so that it should go off exactly when the canoes came up to it. Happily the rising tide favoured our project, and the dynamite exploded just in front of the first two or three canoes. At the detonation, and the shock which the canoes must have received in the explosion, the natives threw themselves down at full length in their boats, then cautiously looked around them as if seeking

the cause of such a novel phenomenon, and expecting something still worse. At last, somewhat reassured, they took to their oars, and went off with all possible haste.

Freed from our troublesome neighbours, we pursued our route, but only a few miles farther, because a violent shock warned us that we were aground in front of a large village, in which we saw one house whose length from board ship we reckoned at five hundred feet, but which might possibly have been half as long. We tried to urge the steamer forward, but our efforts were more injurious than effectual, for we broke the shaft close to the propeller. The tide meanwhile began to ebb, and it was necessary to secure the vessel so as to incur no greater danger when, by the ebb of the tide, the waters would fall considerably. Our situation might become critical at any moment, for hundreds of natives were witnesses to what was going on not far from us, some in canoes, some on the shore close to us.

In a short time all possible precautions were taken against the dangers which threatened us, but the screw was thenceforth useless ; and from that moment we had to consider ourselves as practically on board a sailing vessel instead of a steamer. By degrees the natives approached us in eleven canoes, crying, "Miro, miro !" and as they appeared to be unarmed we suffered them to approach. There were about eighty men in the eleven canoes. Two canoes came quite close, and the men asked to be taken on board. This was readily granted, and in a few minutes two village chiefs and some of their followers were on the deck of the "Ellan-

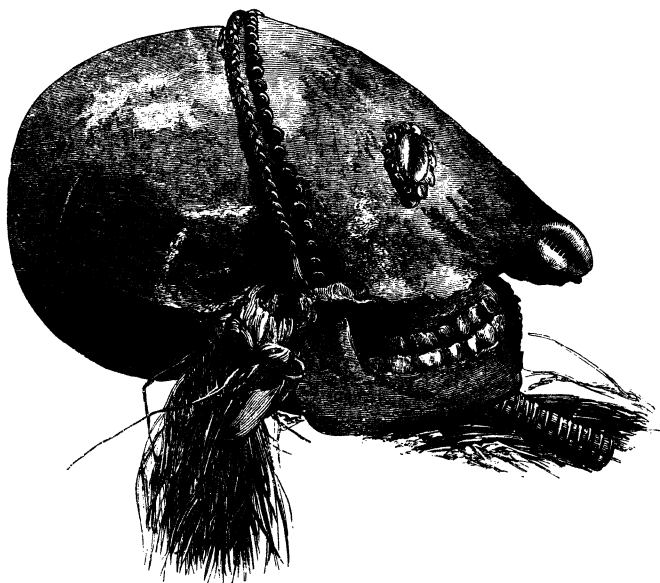
gowan," and were welcomed as old friends. Some of them understood the language of Kiwai, and Maino acted as interpreter. The natives expressed regret for having tried to attack us on our arrival, and assured us they would on no account have harmed us. Such declarations, however agreeable, must, however, be considered of little worth. They examined everything on board with marked interest, and received many presents. Then we asked them for a pig; and they said they would gladly sell us one, if we would go ashore to receive it from them.

Mr: Chester, with eight men, got into the boat, and, surrounded by the natives, who yelled and laughed, made his way to the village.

We from the ship observed with interest a scene so different from that presented some days before by that same place. When Mr. Chester arrived close to the village all the natives disembarked from their canoes, and began to exchange with him cocoa-nuts, yams, and bananas for knives, while he remained in his boat.

All was going well, so far as we could see from the distance at which we were, when suddenly all the natives fled, we saw smoke, and heard a gun fired. We could not imagine the cause of all this, but we saw Mr. Chester suddenly leave the shore, as if about to return on board. Immediately afterwards he turned back towards the village. Another gun-shot was heard; then we saw Mr. Chester and his men disembark, and walk towards the village. Then came two more shots, and some of our men were seen to enter the long house. Not one native was in view.

After half an hour we saw Mr. Chester and his men leave the village. Half an hour more and he was on board the "Ellangowan," laden with spoil. According to his account the natives made excuses for not selling the pig they had promised, and he, provoked, and wishing to intimidate them, fired off his gun. The natives,



as already described, then fled, and he, thinking that perhaps they were flying to arms, had purposed to retreat. At this point, however, he perceived that the village was deserted. Meanwhile a superb pig appeared on the shore, as if to entice Mr. Chester, who accordingly yielded to the attraction, and returned to the village. The poor pig was immediately shot, and the men leaped ashore to carry it to the boat. Meanwhile another

pig appeared, and one of our men shot it. Not one of the natives showed himself, so Mr. Chester went into the long house and traversed a portion of it, collecting some objects belonging to the natives. Amongst the most remarkable things he took were fourteen human skulls, covered by a sort of half mask representing a face,<sup>1</sup> which appears made of a resinous wax, and is adorned with red seeds and shells. The nostrils and eyes are made of shells. To judge from their whole aspect, and from some small stones and beads, these skulls must be used as instruments of music, or rather, noise. Maino says so, and their appearance confirms his statement. I reserve a more detailed description of these skulls, which are of great interest, both for the ethnologist and the anthropologist.

There were also bamboo knives, and daggers of cassowary bone, very neatly made; small helmets, made of string and decorated with bird of paradise feathers; bows and arrows and other small articles, all of much interest as connected with this people. The canoes are thirty, forty, or fifty feet long, narrow, and worked by a single paddle; the bows are tolerably strong, and six or seven feet long; the arrows vary in length, and are of every shape, in bamboo, wood, and bone. The latter are said to be poisoned. All are neatly made and carved. Amongst the people who came about us to-day I noticed that the predominating colour of the skin is rather light, though there were not wanting individuals of very dark hue. I may say, however, that I

<sup>1</sup> See plate, p. 39.





SKULLS OF NATIVES OF CANOE ISLAND.

*Vol. II., p. 40.*



saw none really black, and not one offered any resemblance to the genuine negro type. But I observed in general a physiognomy which strongly recalled the Arab type. In some cases this type was remarkably evident. In many instances the faces are distinctly prognathous. Of moderate stature, these natives are for the most part slight in form and agile in movement; the head is generally small, with low receding forehead. They appeared to me very much alike; and this is due probably to their exclusive intermarriage with their own tribe, or tribes of similar race. I do not consider that they represent a pure type of any race, at the same time they afford a very marked type of a variety occasioned by the commingling of two distinct races.

From what I have seen, I think we may conclude that they have more affinity with eastern than with north-western races. As a rule they have short hair, which it was easy to see is evenly distributed over the scalp. I noticed some, however, with long hair, curled, and smeared with the clay and oil used in other islands of the Straits. They are completely naked, and many have the prevalent skin disease.

After dinner we perceived a crowd of people in front of the village, but no one ventured to come near us. Probably Mr. Chester's visit had not pleased them. At nightfall we kindled some blue lights and one or two rockets, believing that these simple measures would avail to discourage the natives from any design of attack which they might have conceived. On a lofty tree near the village we saw some feathers of birds of paradise,

probably intended to serve as a decoy to other birds of the forest.

At night we saw fires in many directions, but nothing occurred to disturb our repose. To-day we strongly realized the disadvantage of our position in being reduced to the condition of a sailing vessel. Happily, being not more than about seventy miles from the sea, and the river being tolerably wide and the current strong, we are in no real danger, and it is only a question of time. To-day, we descended several miles, towed by our boat, and cast anchor near Canoe Island. We were visited by some canoes, with a few men at a time, and the usual barter took place. Two had a deep tattoo mark on the shoulder, somewhat resembling a serpent. About three in five were afflicted with cascado. Like those of yesterday, they have aquiline noses, retreating foreheads, small heads, small, bright eyes, strong and very white teeth, lips of moderate size and not turned back, and are of medium stature.

*December 20th.*—We continued to descend slowly, and cast anchor near Attack Island without seeing anything remarkable. Towards evening there passed us millions of Torres Straits pigeons, *Carpophaga spilorrhoea*, and thousands of the *Ibis strictipennis*; we saw also many ducks. To-day a north-west wind favoured us, and with all sails set we left Attack Island. We passed to the westward of Kiwai, and towards half-past two, wind and tide serving, were able to cast anchor about a mile from the coast of Kiwai.

Maino and Anta wished to disembark here, and,

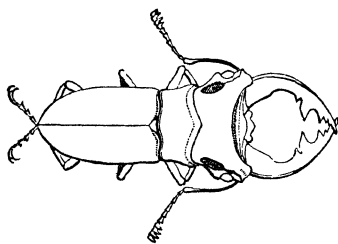
with Mr. Chester and the engineer, we went ashore with them to a village. About thirty of the natives stood on the bank, waving branches of trees. We found them building new houses, although the soil is quite a swamp. This appears to be a temporary village, only to be inhabited during the time of harvest and of the preparation of the sago, in which the locality abounds. We made some exchanges, and among other wares obtained a very beautiful tortoise-shell bracelet. Here also the men are perfectly naked. They are well made, and not very dark, have little beard or hair on the head, the hair more or less curled, receding foreheads, aquiline noses, and are of moderate stature, some being tall, almost all thin.

*December 22nd.*—Here we are at last at sea, and out of the Fly, whence we issued this morning by the aid of a north-west wind. While we were preparing to set sail there came on board the most lovely insect we have seen during our voyage—a magnificent *lucanide*, of the genus *Cyclommatus* (*Cyclommatus Margaritæ*).

*December 28th.*—To-day I disembarked from the “Ellangowan,” and returned to my house at Somerset, very grateful to Mr. MacFarlane for the opportunity given me of penetrating for 150 miles into the interior of New Guinea by means of the river Fly. Still, as the voyage was cut short just when it would have been most interesting to pursue, I am determined to repeat it on my own account. The difficulties are great. Shall I surmount them? When, as we sailed away from Kiwai Island, I saw the coast grow dim

and gradually disappear, I said within myself, "Farewell, Fly River! we shall meet again, and soon."

Now I repeat, in the solitude of my hut, "I will return to the Fly; I will go to its source." A voice within me asks, "Wilt thou succeed?" I answer, "We shall see."



*Cyclommatus margaritæ.*

## SECOND EXPLORATION OF THE FLY RIVER, 1876.

### FIRST VOYAGE OF THE "NEVA."

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#### CHAPTER I.

The "Neva"—The crew—I induce Maino to accompany us — Kiwai Island — Tzamari — Camel-faces — Terrible disease—Para — Timid Natives — Canoe Island — Walker Island—Bats—The Artamus—Strange fruit—The left bank — Burial huts—Cormorants—A beautiful orchid.

*April 20th, 1876.*—Having obtained from the Governor of New South Wales a steam-launch for my projected cruise up the river Fly, I left Sydney on the 20th of April, on board the mail steamer "Brisbane," which also carried the "Neva," for so the steam-launch which had been granted me was named.

On the 1st of May I reached Somerset, where I disembarked. The "Neva" was lowered from the side of the "Brisbane," and the next day I began to get her in readiness to put to sea as soon as possible. For various reasons I was not prepared to start until the 18th of May.

On the 18th, towards the middle of the day, I

went on board, after having taken leave of the Rev. Mr. MacFarlane and of a few other acquaintances.

At 1 p.m. we weighed anchor, and came through Albany Passage, saluted by our Somerset friends with the usual waving of white handkerchiefs.

The crew of the "Neva" was thus composed : an engineer, in the person of Mr. Lawrence Hargrave; Clarence Wilcox, a youth of seventeen, whom I had engaged at Sydney as assistant collector; Palmer and Jackson, two West Indian negroes; Bob, a native of the Fiji Islands; Tom, a native of the Philippines; Tiensin, the Chinese cook; John, a native of the Sandwich Isles; Johnny, a native of Lifu (New Caledonia); and lastly, myself, the head of the expedition, and the captain of the "Neva."

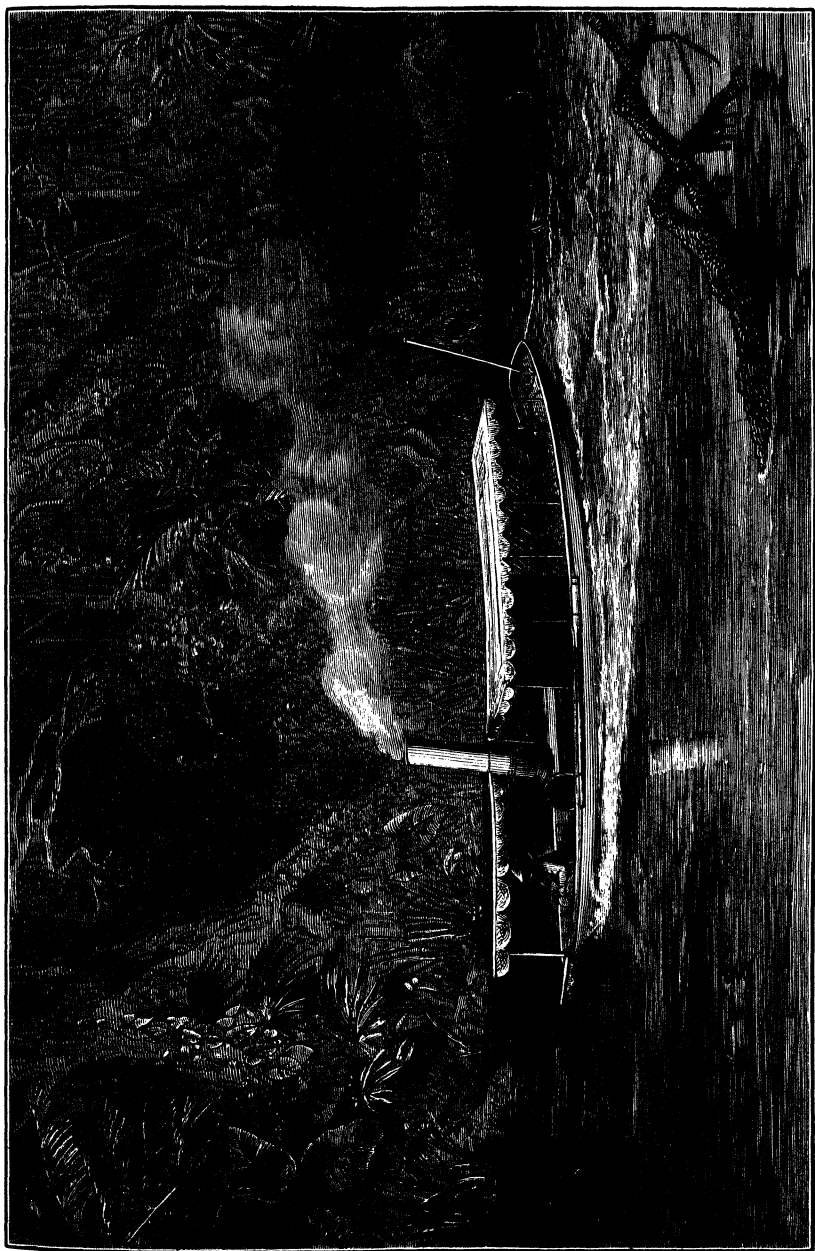
The "Neva" is a small steam-launch, her greatest length measuring fifty-two feet, and her greatest width seven feet. She has neither deck nor cabin, but a zinc canopy covers two-thirds of her. A wooden partition behind the engines makes a cabin, in which were stored the provisions for the voyage, and which served as a sleeping-room for me, for Mr. Hargrave, and for Wilcox. The others slept, uncomfortably enough, in the engine room.

The "Neva" is between nine and ten tons burden.

She was overladen, and was but six inches out of the water amidships; and as she had no deck, it was dangerous to put to sea in her, except in calm weather.

The armament of the "Neva" was composed of ten guns aft, of which one only was a rifle, and of four six-chambered revolvers. I had besides





THE "NEVA."



on board 2000 small-shot cartridges, and some dynamite to be used for fishing, and which would also be available as a means of defence. Lastly, rockets and different coloured fire-works.

If from its good or bad beginning one might predict the result of an undertaking, I should certainly have had little cause for exultation ; for only a few hours after leaving Somerset, some of the bars of the furnace melted, and we had to anchor for the night near Harvey's Rocks, to repair them.

Besides this, Mr. Hargrave was taken ill with fever ; and we had to remain on the 19th at Long Island. The 20th being a perfectly calm day, we anchored at Warrior Reef. On the 21st we fell in with the schooner "Pacific," and other vessels engaged in the mother-of-pearl fisheries. We took in coal and other things that we had ordered from Somerset, and then we sailed for Moatta, a village at the mouth of a very small river called the Kataw. Towards 3 p.m. we were in the deepest part of the channel, about a mile from Moatta ; for the tide being low, it was not possible for us to enter the river Kataw, although the "Neva" does not draw more than four feet.

*May 22nd.*—I disembarked this morning at Moatta, and succeeded in inducing Maino, his son Waruki, and Dawan, to accompany me as pilots to Kiwai Island.

Dash, a handsome setter, and a sheep which formed part of the crew of the "Neva," excited the admiration of the people of Moatta. About 9 a.m. Maino and his party, having taken leave of their friends, came on board with me, and we

immediately started, hoping to arrive that evening at the mouth of the Fly.

After passing Bristow Islands, called by the natives Bobo, and Bampton, which they call Parama, we sighted Breakfast Island (Mibu), situated at the mouth of the river Fly, between the *terra firma* (Daudai) and Kiwai Island. At half-past 6 p.m. we anchored in two fathoms and a half of water, and at about three miles from Breakfast Point. At low tide we found ourselves almost aground; but fortunately, the weather being calm, we suffered no damage.

*May 23rd.*—To-day at 10 a.m. the flags of Italy and New South Wales floated together over the waters of the Fly. At 12 we anchored at about a mile's distance from a village situated on the west coast of Kiwai Island, and called by Maino, Tzamari. This little village consists of only three houses, not very large, one of them built below high-water mark, where the forest has been cut down by the natives. Although in the eyes of an European it would seem that a worse situation than this river-bank of mud could not be chosen for human habitation, yet to the south of the houses are large plantations of cocoa-trees. Maino went ashore immediately with the men, to procure fuel for the engines, and to ascertain whether it would be possible to obtain bananas, yams, taro, cocoa-nuts, and some salt pork, with which to replenish our stores. At 4 p.m. I landed, and found Maino, surrounded by about sixty men, close to a large fire, which they had made near the houses. I saw neither old men, women, nor children among them, and

from this I felt convinced that on our arrival all except the young men had fled from the village. In front of the houses I found little heaps of bananas, yams, taro, and cocoa-nuts, ready for sale. Behind them stood the owner, waiting to be paid for his goods. Before beginning business, I had to shake hands with the principal villagers,



Durabi's head.

who were introduced to me one after the other by Maino. *Tzamara*, the oldest and most important, came first, then Durabi, Mau, Amea, Baghea, and lastly Gaibiri.

As I wanted to obtain salted pork rather than bananas or yams, I decided that a pig should be the first thing bargained for, and I offered in exchange a red woollen cloak and a large hand-

some knife. My offer was immediately accepted, and the animal, for which fate had reserved the honour of death by a bullet, was pointed out to me. The poor brute passed along through the crowd of natives, unconscious of its destiny; and when my intention of killing it with my gun became known, several of the natives took to their heels, while others remained, full of curiosity. A two-ounce bullet behind the shoulder, and the poor animal was dead in an instant, to the great wonder and fear of the natives, who for the first time witnessed the murderous power of our fire-arms.

I afterwards inspected the fruits on sale in heaps, putting down before each heap a little tobacco and some glass beads, according to its value.

All seemed satisfied with the distribution I made, and each one withdrew his quota according as I put it down. Unluckily, neither the "Neva" nor our boat could have held all that had been got ready for us, and I had to decline buying some, to the great dissatisfaction of the would-be vendors. In order to allay the discontent which was caused by this, I gave the natives to understand that on my return I would buy from those who had not succeeded in dealing with me to-day. A few perfectly understood my explanation, and the ill-humour that had been occasioned by this incident was immediately quieted. I left the village after sunset, and several natives accompanied me to the boat, helping my men to carry the goods we had bought.

The people of this village do not seem to me to differ greatly from the inhabitants of Kataw, though the colour of their skin is in general rather lighter. I did not observe among them any of

those marked types which I have had before, and shall have again, to distinguish as Arab. I observed a few of these at Kataw. On the other hand, I noticed many approaching the Hebrew type. I afterwards saw a few individuals of a special type, which, in truth, I know not how to describe. Their features remind the observer of those of a camel. I believe that a photograph of a skull belonging to this type would be the most precise description that could be given, for with a little imagination one could clothe this skull with flesh again, and see how specially distinct it is. The hair is, generally speaking, short and woolly; but sometimes it is long, and plastered in little curls with oil and mud, as is the custom in certain of the islands of Torres Straits.

I did not remark much variety among this type, because long and narrow faces are the rule. Some are very prognathous, others but little so; some are ortognathous.

These natives are in general thin, and have slender limbs. Some wear long beards, but their bodies are completely destitute of hair. The prevailing type is a retreating forehead, pointed head, hollow temples, aquiline and rather large nose, moderately thick lips, large eyes with brown irides, or black with a slight bluish tint, the eye-ball white or yellowish. They wear no ornaments, and have no arms, apparently, except bows and arrows, and knives, which they obtain from the natives of Moatta. They seemed very timid; and however much I tried to encourage them, I could not succeed in banishing their dejection, perhaps caused by timidity at first meeting a white man. This natural

melancholy was more apparent than their fear. Their houses, of very poor appearance, are long and narrow, and with one opening only at each end. They are supported on the trunks of trees, and raised from ten or fifteen feet above the muddy ground.

In this place I saw some natives affected by a disease horrible to see, but which, however, causes no inconvenience to those attacked by it.

Maino calls this disease by the name of muopo, and it consists of an extraordinary enlargement of the scrotum. I saw none here larger than an average human head; but Maino assures me that at Dibiri, a village on the coast of New Guinea to the east of Kiwai Island, there are instances in which the scrotum reaches the feet. This, though I cannot guarantee it from personal knowledge, is nevertheless not improbable, for a similar disease is prevalent in some of the South Sea Islands.

*May 24th.*—We passed the night at anchor opposite the village of Tzamari. There was a strong breeze from north-north-east nearly all night—afterwards it veered to the east, and at last to the south-east. In the morning there was a deluge of rain; this was succeeded by a beautiful day. We went up the river a little way beyond Tzamari, and found the water perfectly fresh in a channel about five fathoms deep. We stood in near the islands west of Kiwai, and here and there met with sandbanks, which left only two or three fathoms of water in the channel.

At 11 a.m. we anchored opposite a village called Para by the natives. This village is easily recognised by tall trees which grow near the houses.



These trees are very singular in shape, almost flat at the top, with branches growing out horizontally. We had not an opportunity of seeing the natives. The current was exceedingly strong, and we could only sail at high tide. At spring tides the water rises from eight to ten feet.

Towards evening we saw a canoe with two men, in the distance.

We succeeded in inducing Maino and his followers to accompany us throughout the whole voyage. From to-day they form part of the crew of the "Neva."

Next morning we weighed anchor at half-past seven. We passed the extreme point of Kiwai Island, in sight of Attack Island, where we found a wide channel which opens into the sea. East of Kiwai we found the waters much ruffled by a south-east wind, and I had to forbid any one from coming on board. But about half-past 2 p.m. we arrived opposite Canoe Island, where we anchored in order to get in fuel and to pass the night.

The map I have with me is one published by Mr. Chester after the voyage of the "Ellangowan." It seems to me now that the last islands which are found at the extreme west of Kiwai Island should be marked rather more to the south, so that the largest of them, which I named MacFarlane Island, should be somewhat higher up than the extreme point of Kiwai. On the east of Attack Island I will add a small island, near another one already marked. I will call them "The Two Sisters" (*Due Sorelle*).

Almost opposite Canoe Island there is a long strip of land, which appears to be increasing in

size by retaining large quantities of sand and earth drifted there by the current, and by clothing its coasts with fresh vegetation. Canoe Island, on the contrary, seems destined to perish, it is being gradually washed away by the sea.

There are large numbers of sago-trees in this island, and a muscatel-nut-tree grows in great abundance, producing a large and fragrant fruit.

*May 26th.*—While awaiting the moment of departure this morning, we saw a canoe, manned by seven men, coming towards us, but at a short distance they stopped. A little later I remarked three other canoes, coming from a village of New Guinea, higher up than the island near which we lay at anchor. I made signs of peace; I called out *Miro, miro!* (peace! peace!) but the natives made no reply, and dared not approach beyond the spot where fear counselled them to remain. Towards half-past eight, all being ready for departure, I gave orders to weigh anchor. As we intended to cruise along the coast we had to turn the prow of the "*Neva*" towards the canoes. This seemed to alarm some of the natives, and a few began to turn back. Presently the puffing of the engine turned the retreat into general and precipitate flight.

In order to escape more quickly, the natives forsook two of the canoes, that they might save themselves by hard pulling in the other two.

It was amusing to us to see them running the risk of drowning in order to escape a danger which existed only in their own imagination. Although they belonged to the same village whose inhabitants had attacked us during the

voyage of the "Ellangowan," I believe that to-day they had no hostile intentions, for I could not perceive either arms or warlike ornaments. It is true that when we were here in the "Ellangowan" they came to attack us, and were driven back by a discharge of fire-arms; but when we went up the river, and showed them how we meant to deal with them, and the gifts that I would take from them in exchange, I think they must have been inclined to trust my words and my pacific gestures.

Our voyage was not without a few slight incidents, for twice we found ourselves aground almost alongside the village. There seems to be a bar at this point. At low tide we can see great banks of reddish sand.

The left bank of the river is to a great extent covered with cocoa-trees and bananas, and, to judge from the smoke rising from many points, the natives must be very numerous. Notwithstanding some time being lost in seeking for a passage and waiting for the tide to rise, we were able to anchor near Howling Place. This is the spot where, during my first cruise up the Fly, we saw the natives on the river banks, endeavouring, as it seemed, to prevent us from landing, by shouts and objurgations. But to-day not a living soul was to be seen, and nothing could be heard but the howling of the dogs, a sign that the natives were not far off.

Yesterday and to-day I would not allow any fire-arm to be discharged, so as not to frighten the natives, as I hope to induce them to have friendly dealings with us.

But when I saw this evening that instead of this they hid themselves, rejecting the friendship I

offered them, I thought I would let off a few rockets, to celebrate our entry into the river. I could judge at the same time whether, in case of need, dynamite and rockets would be useful as a means of defence.

The experiment was simple enough. The cartridge had to be inserted in a rocket to which the dynamite had been previously fastened. The moment of the explosion of the dynamite is regulated by the greater or lesser length of the fuse.

A rocket such as is generally used on board steamers as a signal light, will carry two ounces of dynamite to a distance of 200 or 300 yards, or even farther. The experiment of this evening was a marvellous success, and the effect of a shower of fire in the midst of the darkness of the forest was indeed splendid. On the explosion of the rocket the dynamite fell into the river, and after a short time exploded with a tremendous report, which woke all the echoes of the forest.

If the natives were remaining on the watch at any point, one can imagine what effect the double report and the shower of fire must have had upon them.

I believe that the use of rockets, combined with dynamite, could, especially at night, keep a whole fleet of these heroic savages at bay, and by day it would serve to throw a whole village in disorder.

The night passed tranquilly, and towards 11 a.m. we weighed anchor, but not long afterwards we had to stop near a small island (Walker Island) in order to wait for the turn of the tide.

Wishing to profit by the time that we must remain motionless, I embarked in the boat and

entered a little creek, where I tried dynamite fishing, with excellent results both as to the number and quality of the species I obtained.

The island is covered with beautiful vegetable growths, and its trees are very tall, and of a rich deep green. The muscatel-nut abounds. The shore is covered with tangled vines, and especially with a magnificent long-leaved rattan, which climbs to the top of the highest trees.

The trunks and branches of the trees are all covered with ferns and orchids. There is also a plant<sup>1</sup> now in flower, which forms the most beautiful ornament of the forest. This plant climbs the highest trees, and covers them with its masses of yellowish-red blossom. Each flower is about five inches long and one inch wide, and the bunches, formed by from eighteen to twenty of these, are sometimes as much as two feet in length. The banks of the creek we were ascending were covered with "pandam" from the long roots, partly exposed, and partly sunk in the mud of the creek. Here also the rattan interlaces itself with all the trees and plants within its reach, rendering access to the forest excessively difficult, if not impossible. Hitherto the voyage had not greatly interested me, for a large portion of the country is more or less under cultivation by the natives, and where it is not, the forest prevents any view beyond the shore.

I had, as yet, seen and heard but few birds; but I judged that there must be some fruit-tree in this island which attracts them in great numbers, for to-day I recognized the note of two

<sup>1</sup> *Mucuna Bennetti* n. sp. Baron v. Müller.

or three species of birds of paradise, while, on the explosion of the dynamite, flocks of pigeons, of different kinds and sizes, flew about terrified. The notes of many white and black cockatoos, the shrill cry of several species of small lories, reminded me of the parrot-house in the London Zoological Gardens. Heavy-winged, and hoarse-voiced horn-bills, and crested pigeons flew majestically over the beach, a hundred *Calornis* passed swift as arrows overhead, while many small insectivorous birds gave merciless chase to the insects, which seemed to abound. The solitary eagle-fisher was circling in the air, or motionless on a branch, watching for his victims. Once before, I had had an opportunity of seeing a bird of this species standing on a trunk which floated down the current.

As a naturalist I can never forget Walker Island. We had left the island in the afternoon, and anchored for the night ten miles farther up. We weighed anchor very early, so as to take advantage of the tide. We passed a group of small islands entirely covered with magnificent vegetation. The gigantic trees, with straight trunks, few branches, and small leaves, seemed to me of the kind called iron-wood in the north-west of the island. I frequently heard the song of the *Paradisea*, and the singular vibrating notes of the *Ptiloris magnifica*. The pairing season must have been beginning for these birds, for, in December of last year, I heard only a few isolated notes, which, however, convinced me of the existence of the species in these places.

While the men were employed in cutting wood I landed, to pass the time in bird-hunting.

Besides a number of interesting birds, among which were birds of paradise and gowras, I obtained some good specimens of insects, and some river shells.

I discovered a numerous family of bats in the trunk of an old tree; and easily laid hands on several of them.

I must note also the ash-coloured Artamus, with snow-white breast, of which I saw a family of seven or eight members, on the top of an old tree, which grows in the bed of the river, about thirty yards from the shore. (These trunks of trees are silent but eloquent witnesses to the action of the current, which, by accumulating earth in certain places, forms new islands, while it destroys others, carrying them away a little at a time.) Woe to the insects which, incautiously, pass near to the winged family. Two, three, or more, are up in an instant, and, with a blow of the beak, which can be heard at some distance, end their lives for them.

Sometimes they remain for hours together motionless on the top of a tree, watching for prey, at other times, they hover slowly about, seizing and mastering their prize by a sudden movement.

*May 29th.*—We passed more islands, covered, like the former ones, with magnificent forests, impenetrable to the eye. Birds seem the only inhabitants of these wild parts. We frequently saw snow-white herons flying from before us on the shore, then stopping, again to fly on our approach.

*May 30th.*—We hoped to-day to be able to reach Ellangowan Island, and we did succeed in anchoring a mile or two from it.

In the afternoon we passed a new little village on the right bank. A few miles farther on, but on the opposite side, five natives were shouting and gesticulating like madmen. They showed no fear, however, but seemed to reply by laughter to my signals of peace. Two of them were armed with bows and arrows, the other three appeared to be unarmed. They wore large white shells on their breasts, and one larger shell below the waist; this is the custom of Canoe Island. The colour of their skins was very light. A little farther on I remarked three long narrow canoes without paddles.

\* *May 31st.*—Having passed Ellangowan, we at last find ourselves in a country which the white man has not hitherto invaded. It may be said that for me the voyage really began to-day. The keen interest I had long felt, all my hopes and fears, redoubled as we passed the last point of Ellangowan.

The river here assumes a more uniform appearance, its depth is from seven to nine fathoms. We seemed to be really entering into a new country, and vegetation diminished as we proceeded. One would be inclined to think that instead of entering the Papuan country, with which one associates the idea of immense forests, we were leaving it.

The left bank of the river is almost barren of trees; a few small ones, principally *Artocarpus*, grow at intervals along the shore, but in the far distance, when the watchers could get a glimpse of it, they could discern nothing but willows, grass, and shrubs.

A few feet from the water there abounds a small tree, or shrub, of a very light green colour.



From a distance its branches appear to be laden with a black fruit. But no sooner do we draw near, than this fruit rises into the air at the sound of the paddles, with loud cries, and flies away in all directions overhead, uttering shrill and deafening screams.

These are thousands and thousands of the large flying fox (*Pteropus*), who pass the day on the trees, waiting for the night, when they sometimes travel enormous distances in search of the fruits on which they feed.

The *Artocarpus*, which we saw to-day, bears no fruit, and judging from its smaller leaves, I think it is not the same species which is cultivated by the natives of Bioto and Naiabui.

The right bank is richer in vegetation than the left, nevertheless, it is no longer the forest of a few days ago, and there are numbers of small plants quite new to me. The large trees of one species only, are perfectly straight, with few branches, and fewer leaves. The trunks are white, but covered in general with climbing plants. Seen from a distance they remind one of ivy-covered poplars.

In proportion as vegetation decreased, birds seemed to diminish in number. At 3 p.m. we distinguished on the right bank the ruins of a village, which we approached. I found eight houses, or huts, ruined by the hand of time. The remains of bivalve shells, some pigs' skulls and bones of large fishes, indicated the former presence of natives. Following a road two and a half yards in width, and half a mile long, I reached a point where I found a canoe re-

cently built, and apparently not yet used. It was about fifty feet long, and made from the trunk of a tree; it differed from the others which I had seen, in being square at either end. Across the road were placed the trunks of small trees, at intervals of about half a yard; on these the canoe was rested, so as not to sink in the mud when it was being pushed into the river. At Andai, near Dorey, the natives make use of the same simple means to take their canoes to the sea, which is sometimes many miles from the place where the boats are made.

I obtained here one of the most beautiful beetles of the *Staphylinides* family yet known in New Guinea, where I had found some in a former voyage. M. A. Fauvel, who describes this insect, gives it the name of *Actinus imperialis*. He writes concerning it: "The remarkable shape of the antennæ and tarsi, distinguishes this species, at the first glance, from that of the *Philonthus*. It comprises but one kind, of splendid colouring, only to be compared with the New Guinea birds of paradise; the shape of its head and body recalls the *Philonthus pretiosus* of South America."

Among other things, I remarked in this deserted village some traps for catching fish, and some receptacle for water, made of bark.

On anchoring near the shore we were immediately attacked by swarms of gnats, but on a light wind rising, they left us in peace.

June 1st.—I wished to begin the month by pushing well forward. But for reasons known only to our engineer we started late, and we anchored early.

The river winds very much as it advances in a

N.N.W. direction. The banks, like the interior of the country, are flat ; there are no woods, but vast plains covered with grass and reeds. Neither birds nor animals relieve the monotony of the scene. The bed of the river is wide rather than deep, the water averaging from seven to nine fathoms.

While at anchor during the evening, I watched many hundreds of *Phalacrocorax*, *Plotus*, *Ardea*, and other aquatic birds, flying from the west.

Cormorants in great numbers were passing the night on an old hollow tree near the bank, while hundreds of white Ardees on the acacia-trees looked like so many white flowers.

A shot at a bird, that incautiously approached too near the "Neva," threw this numerous company of birds, black and white, into dire confusion—there was an indescribable tumult in the air, where they flew about in all directions, terrified, and uttering shrill cries. A great number circled overhead, as if examining the danger, and flew round many times, turning towards their companions, who hovered in the air at some distance. Then they seemed to understand that a new and powerful enemy had arisen, and they took to flight in various directions.

From the great number and kinds of birds I had seen, it was easy to conclude we were in a marshy, and perhaps lacustrine country. Several aquatic plants, washed down by the current, confirmed this supposition.

The depth of water continued to be from eight to nine fathoms, but at certain places the lead gave nearly sixteen. I think I am correct in stating the width of the river to be nearly one-third of a mile.

*June 2nd.*—To-day's journey did not differ much from that of the two preceding days. The same plains of long grass and stunted vegetation, here and there some fine tracts of forest, and along the shores more abundant *Artocarpus*.

I also remarked a cocoa-tree, which does not appear to be of the same species as that cultivated by the natives of the sea coast. The trunk of this one seemed finer and smoother, the leaves shorter, and they hang in circular form. In general the trees bore no fruit, and the few which bore any, had their leaves cut. This is probably done by the natives so that they may distinguish at a distance the fruit-bearing trees. We passed several forsaken cabins, near which I observed some of the implements used by the natives in fishing. Towards evening, about two miles from shore, we discerned a small cocoa plantation on the left bank, at a slight elevation. Later, we saw smoke rising behind this plantation, and thus had reason to believe we were approaching an inhabited part of the country.

It is well to repeat here that the birds proper to New Guinea are scarce in the Papuan forests. The few birds we meet with are, for the most part, aquatic, and far more common to Australia than to New Guinea.

On an old trunk in the bed of the river I observed a magnificent *Dendrobium* in blossom. The prevailing colour of the flower was yellow, and it stood out well against the white ground of the old tree.

I do not think I have seen a more beautiful orchid in this country.

## CHAPTER II.

Deserted canoes—A great solitude—A hieroglyphic sign—Gnats—Timid Natives—Unavailing overtures—The wilderness—An old village—Curious carvings—Beautiful ferns—A deserted village—Treasure trove—Skulls—Dash and the Cassowary—Gluttony of the crew—Raggi Island—A harmless and useful serpent—Jackson and Palmer—Waruki as a guide—“Native sagacity”—Another deserted village—Contents of the bags—Rich promise for a collector.

*June 3rd.*—Before weighing anchor this morning, we observed tall columns of smoke at three different points—certain signs of the presence of man.

Towards 2 p.m. we reached a small cocoa plantation. About a mile behind this came a village and a lake, then a dense forest and low hills. The plantation is on the right bank, fifteen or twenty feet above the level of the water. The bank consists of red earth and white tufa. My men landed to gather cocoa-nuts. The action in itself was scarcely justifiable; but I reflected that, as it was not possible to get at the natives so as to buy from them, and as I could leave some articles in exchange by way of payment, and as, above all, our provisions were very scanty, it was not very blameworthy.

Shortly after recommencing our journey, we saw a canoe and two persons in it about half a mile ahead. I hoped to induce them to come alongside, that I might pay for the coconuts, but in vain. The canoe shot lightly through the grass and reeds of a little creek, and disappeared in the direction of the lake and the village. There seemed to be only a woman and a child in the canoe.

In a straight line from the bank, we perceived a sort of little creek, protected from the sun by bamboos. Here also was a canoe. Shortly after we passed by, two natives sprang from it and fled towards the village.

*June 4th.*—The aspect of the country does not vary—always the same low lands, reeds, and high grass.

There are few forest tracts; but, here and there, fine bamboo plantations diversify the scene.

From time to time some forsaken huts reveal the presence of man, who finds not only food, but even a happy existence in these solitudes; where the European sees only squalor and death, and seeks but to satisfy his curiosity and his ambition. These, our fellow-beings, are perhaps happier than many millions of civilized white men.



I was surprised to-day to see a hieroglyph on a tree near the shore, which perhaps we shall never succeed in interpreting, but which doubtless has a meaning for these people. The tree on which I remarked this sign being very white, and the sign itself very black, it was apparent to every

one passing along the river. I had it copied as exactly as possible.

We pursued our way for about eighteen miles, and, having anchored near a bank of willows, had a pleasant prospect of being devoured by gnats.

*June 5th.*—Shortly after sunrise this morning, while I was taking my morning bath, I perceived a canoe, in which a man was crossing the river about 200 yards off. He seemed to be in no haste, but occasionally stopped to look at us, as if observing an unknown and unexpected object. I immediately endeavoured by voice and gestures to induce him to approach us. I even threw a bottle containing a piece of red cloth into the water to float towards the timid savage. But all was in vain; he slowly paddled across the river, and disappeared among the reeds. Two other canoes, in one of which were three persons, followed soon after. Two of them I took, by their garments of grass cloth, like those worn in New Guinea, to be women. The fact that the women here clothe themselves in this way tends to confirm an opinion I had already formed, i.e., that the interior of the country is inhabited by a people akin rather to those now dwelling on the coast of the eastern peninsula than to the tribes inhabiting the west of the great island.

Towards seven, as we were about to start, there appeared from the creek, where the three little canoes had vanished, five larger ones, filled with natives. By their shouts, gestures, arms, and adornments, I understood that they were come out to fight. Their leaders were dis-

tinguished by bird of paradise and cockatoo feathers, which adorned their heads and breasts, while the others seemed to have no ornaments except shells.

After a momentary hesitation, they moved towards us in a mass. My men instantly weighed anchor, and from the poop I made signals of peace, inviting them to approach. I also tried to attract them by throwing bottles, which the current would carry to them, into the water. But my pains were thrown away. They wished to attack us, but evidently no one had the courage to advance. It seemed also as though two of the chiefs were trying unsuccessfully to push in front of the other canoes. Our anchor was quickly heaved, and with flags flying the "Neva" was off. At this sight the terrified natives began to fly. The puffing of the engine and a revolver discharged half a dozen times in the air rendered their flight more than precipitate, and very ludicrous.

We steamed on without other adventures until 4 p.m., when we came to some old dwellings on the left bank, which is here from twenty to thirty feet in height—higher, in fact, than any we had hitherto seen.

We anchored beneath these old houses, intending to pass the night here, and to examine the places where the natives seem to have dwelt for some while. The hoarse note of the bird of paradise, which we heard soon after our arrival, was sufficient indication that we had again reached a thickly-wooded country. Had I not been disabled by a hurt foot, I should have employed my time in searching for birds and



insects. As it was, I had to content myself with limping slowly through the paths of the old village.

In the centre was a cleared square. It may have been used for meetings of some kind—perhaps for dancing, or for religious rites.

Posts made of the trunks of trees, dyed red, stood in the middle, and seemed to have been used to support a trophy. Small dry branches were still fastened to them, with some pigs' bones. On several of the surrounding trees, hieroglyphic signs, depicting animals and roughly-drawn human figures had been carved, and painted red, white, black, and yellow. A crocodile in the act of climbing a tree, and painted black, was rather well executed. I tried to copy the carved human face, but, though I succeeded pretty well, I could not resist the temptation of also bringing away with me the piece of bark on which the original was carved, and which I contrived to strip from the tree successfully.

The act was perhaps a sacrilege against some deity of the place, and may have brought on me a malediction from the devout artist when he discovered the theft. The houses, or huts, have but one story, raised from the ground; and resembling in every respect those in the forest inhabited by the people of Naiabui at Hall Sound.

I found nothing in the houses but some old sacks made of plaited palm-leaves, and, for the most part, containing bivalve shells. These were evidently kept to be made into lime, which the

natives are in the habit of chewing, together with betel, siri, and areca-nut.

A little beyond the houses I discovered two immense megapodius-nests, and in a muddy ditch innumerable swine-tracks. A first glance at these tracks would lead many persons to think that they were made by a much larger animal, but careful observation convinced me that they are merely the footprints of a pig.

The houses extend along the shore for about 300 yards, and are detached. They are, for the most part, half hidden by vegetable growth, which in this region is luxuriant, and the trees are exceedingly lofty. There is an abundance of very beautiful ferns, and I noted a number of new kinds.

Towards the West, the country we are now entering is not flat, but has low hills. The bank on which the houses are built appears to be of white and red clay. The *Artocarpus*, a kind of wild taro, is every abundant. By the use of dynamite I obtained four specimens of catfish (*silurus*).

*June 6th.*—We made about twenty-five miles to-day in a N.W. direction.

The banks of the river are high, and covered with fine forests, which obstruct the view across the country, but it is, I believe, undulating.

I fished with dynamite and captured some large fish—too large to preserve, and too interesting to eat. I did the best I could by preserving the heads, fins, and tails, and by giving the remainder to the cook. In the evening, while I was fishing with a hook, instead of a fish I drew

out a serpent, which I now met with for the first time in New Guinea. It is of a beautiful dark olive colour, marked on the back with black, and on the belly with yellow. It has not scales, like other serpents, but, as it were, tubercles terminating in a point, which give the skin the appearance of shagreen. I remember having seen similar dried skins in use among the natives of Moatta; they use them to polish their arrows, in the same way that our carpenters employ the skins of certain fishes. The head of this serpent resembles that of the bull-dog (*chersydrus*?).

*June 7th.*—Again to-day we passed a small cocoa-plantation, but saw no natives. I could not resist the entreaties of my men for permission to land and gather a few cocoa-nuts. Later on we again stayed to visit another deserted and partly-destroyed village, on the left bank, which is here from twenty-five to thirty feet high. It appears to have been abandoned because it was in danger of being washed away by the current. A few of the houses were already destroyed, and had fallen into the water. We climbed up to them by some old stairs, made of trunks and bamboos woven together, but they were too old to bear our weight, and the ascent was difficult and even dangerous. We found eight or ten detached houses, in a more or less ruinous condition. At the upper end of the village there was one in perfectly good order. Its shape is different from the others, which are rectangular; this, on the contrary, is like a boat upside down, and divided across the middle, leaving part of the keel standing upright. to form, as it were, a spur. The earth serves

for flooring; in this only does it differ from the reception-houses, called Marea, used by the natives of Mou, Bioto, Naiabui, and probably of all the eastern villages, and which have their floors always more or less raised from the ground. I found no provisions in this house, but I remarked two bundles hanging on the walls, done up in large pieces of flexible bark. In the first I found a broken stone hatchet, two human skulls, painted red and yellow, some bivalve shells, and a small quantity of a beautiful gum, or resin, yellow as amber. I found also an article to which I cannot assign a name, but here is the description of it: A cocoa-nut of the smallest species is fastened to a handle made of a light wood, covered with bark, tightly bound on, and painted in various patterns, in white, red, and yellow. The cocoa-nut itself is painted in the same way, and ornamented with red and white beads, but on one side only. An oval hole serves to empty the nut of its contents. The design and arrangement of the beads vary, but a sort of cross predominates. On some of these nuts, however, it would seem as if the artist had tried to represent the human head. In these cases the hole I have described takes the place of the mouth; the nose is artfully imitated with little bits of bamboo, ornamented with beads, and fastened on with a sort of gum or wax. In the same way the forehead and eyes are formed and ornamented. The outer covering of the nut at the back is used to represent hair.

The second bundle contained two skulls, some other objects, such as I have just described, and

a round stone hammer, of a kind which I have frequently seen used by the inhabitants of this island, but especially by those of the east side. This one was, however, incomplete; the hole in which a stick is inserted to form the handle, not being finished. From one of the skulls there escaped a rat, to the terror of the man who had it in his hand.

I found the usual netted bags in the other houses, containing large quantities of bivalve shells, which no doubt the natives had intended to grind into lime for the purpose of chewing. Here also were fish and pigs' bones, and the shells of turtles, in which it seemed the creatures had been cooked. One house, a little apart from the others, seemed, from its special construction, to have been appropriated to the women. It was enclosed by a wall made of palm-leaves, and the only entrance was by a small door.

I inferred, from many little articles left behind, that this house had belonged exclusively to the women. Although there is no regular plantation here, there are some few banana-trees, and judging by the fruit, I may say they are the finest that I have yet seen in these parts. There are also many tobacco-plants of great height, with long broad leaves, and seemingly of excellent quality.

We returned on board in the evening, the crew well pleased with the tobacco and some small bananas, and I with four skulls and several other curious objects which I had brought with me.

The skulls appear to belong to the dolicocephalic type; measurements as follows:—

No. 1,	Length	7	inches ;	width,	5
No. 2,	„	$6\frac{3}{4}$	„	„	$5\frac{1}{4}$
No. 3,	„	7	„	„	$5\frac{3}{8}$
No. 4,	„	$6\frac{3}{4}$	„	„	$4\frac{3}{4}$

The skulls which, in 1875, I obtained at Canoe Island, belong, according to their measurement, to the brachiocephalic type ; and although logically one can come to no conclusion on the matter, still there is a hope of finding types of two different races on the river Fly. The skulls I found to-day were not prepared in the same way as those I found last year at Canoe Island, but were painted red, white, and black, in a longitudinal direction. As usual, they were incomplete, the jaw-bone being wanting.

*June 8th.*—During the day we made from twenty to twenty-two miles in many zigzags, but on the whole in a northerly direction. We reckoned we were about Lat.  $6^{\circ} 28' S$ , and Long.  $140^{\circ} 20' E$ . We visited other forsaken houses, but found nothing of any interest. I remarked two crocodile skulls ; bananas, tobacco, and the *Coix lacryma Jobi* are the only plants I saw cultivated by the natives here, and these in small quantity.

From what I saw of these forsaken houses and villages, I came to the conclusion that they are only inhabited occasionally by the natives, perhaps at the fishing and hunting seasons, and that their permanent abodes would have to be sought in the interior and perhaps on the hills.

The next day we made about twenty-five miles more, and having arranged to give a day's rest to the crew to-morrow, I anchored at a spot where

the luxuriance of the forest gave hopes of some hunting, which might vary our daily fare of salt meat. To-day again we saw some natives, but only at the point where we had seen them previously.

We also passed before a small house near which were eleven young cocoa-nut-trees. The current to-day was stronger than usual and the water was muddy. The great number of trunks of trees floating by, indicated that heavy rains had fallen in the North.

*June 10th.*—As many of my people are tired, and very reasonably ask for a rest, we remain to-day at anchor. Four of them, however, accompanied me into the forest to hunt. On landing, without separating too far from each other, we advanced cautiously and silently in line, hoping to come across some wild boar.

My dog Dash was soon on the track of a cassowary, but the forest being intricate, with ivy and other climbing plants, I lost sight of him and could not follow, having to cut my way slowly with my knife. All at once a shot resounded through the forest, then another, with shouts from my people. I ran towards them, and found a magnificent cassowary still alive, which one of my men had brought down with his gun. To describe my delight at the sight of this splendid creature would not be easy, all the more that I had never before met with such an one, although I had crossed the forests of New Guinea oftener perhaps than any other white man.

The poor cassowary lay on the ground bleeding from the wound made by the ball that had

knocked it over, but threatening the dog with its formidable beak. I did not observe that it strove to defend itself by kicking, as it is said to do, and the wound that had disabled it would not have prevented its using the other leg in self-defence. We soon returned on board, where we dressed the skin and cooked the carcass. The flesh we found excellent. To pluck a bird of that size is not the easiest thing in the world, and in the present case it was very difficult, from the fat which covered the flesh to a depth of nearly two inches. It made a real feast on board. Maino especially showed how much he preferred game to salt beef by eating such a quantity, that to-day I have him ill with indigestion. I do not know for what reason he forbade his son Waruki to eat any of the savoury meat, but the poor young fellow had to content himself with a pigeon. Yesterday, when I had drawn the tendons from the cassowary's legs, Maino asked me for them. I inquired in what way they would be useful; he answered me that if they were given to him, he should take them with him to Moatta, where he should bury them at the foot of his banana-trees, to cause them to bear fine fruit. I acceded to his request, and I hope they may be as efficient as he expects.

We pursued our course to-day for some twenty-seven or twenty-eight miles, in a northerly direction. We saw no trace of human habitation, the country has a truly wild aspect. The forest, however, is more beautiful than can be imagined. The *Mucuna Bennettii* is still to be seen here



and there, adorning the trees with its rich garlands, but it is scarcer than heretofore.

In its stead, however, another plant of the same family covers the tops of the trees with leaves and masses of flowers. The flowers of this species are rather smaller than those of the *M. Bennettii*, and being of a greenish yellow instead of red, are not so beautiful. I obtained a few specimens, which gave Baron von Müller the opportunity of describing this plant and of naming it *Mucuna Albertisii*.

On the ground in the forest I found flowers of a third species belonging to a plant which may perhaps be allied to the same family. I could not, however, discover any foliage. The flowers of this plant, which I suppose to be a third species, are blue.

There was discontent on board to-day. The men complained that the cook was trying to economize the cassowary-meat, and was giving them short rations.

The ill-humour of my people increases instead of lessening. To-day we came to the end of our store of rice. The men grumbled, but I induced them to keep quiet. They could not be hungry, for in two days they had devoured more than fifty pounds of meat—there was at least that weight on the cassowary,—besides other food.

We continued to advance towards the north. The banks are beautifully and richly wooded. The bed of the river, although somewhat narrow, continues from three to five fathoms deep. We passed an island which I named Raggi Island, then we reached a point where the river is crossed

by another stream, which seems to run from north to south.

We stopped at a point formed by the junction of the two rivers and I landed. We found an old arrow, and some marks made with a sharp instrument on a tree, a certain sign that reasoning Man is an inhabitant of these wild regions. The Chinese cook caught sight of a fine serpent, sleeping at the foot of a big tree, and I easily captured it, for it made no attempt to escape. It belonged to the Python family, and strongly resembled *Liasis amethystinus*, but I believe it to be of another species. It differs from the before-named kind in the extraordinary size of its eyes, and in its colouring a metallic blue is remarkable. I will keep it alive on board, as it seems good-tempered, for I held it closely in my hands for half an hour, and it made no attempt to bite me. My people are greatly afraid of serpents, and the mere knowledge that I am keeping it alive among my possessions will prevent them from taking tobacco or other things, which they might otherwise wish to appropriate without leave.

The python is seven feet long and quite a young one. To-day I saw a white Seleucide flying so slowly across the river that it might have been wounded. I observed that as it flew it kept the yellow side-feathers close against its body. As if already exhausted with its short flight, it rested on the first tree on the bank. Passing near a tree laden with fruit, I noticed several pigeons, parrots, and hornbills flying away. Aquatic birds have recently become scarce, and now only the true Papuan birds are to be seen.

*June 13th.*—Last night Jackson and Palmer came to words and from words to blows. Palmer is a negro about forty years of age, but he looks much younger. He is a true sailor, strong and sinewy. He has travelled, as he says, all over the world, and he sincerely believes himself an important personage. He is our principal man on board the “*Neva*,” the others being bound to obey him. Jackson is a negro too, about twenty years old, and of herculean size and strength. He is a native of Jamaica and is proud of being a subject of the Queen of England; he says at least twenty times a day “I am an Englishman,” and believes himself, on this account, superior to all the others. Jackson is a very intelligent negro, he has studied much and is fond of study. He says he has been a schoolmaster. He has a decided taste for poetry, and even writes verses—mostly against the captain of the “*Neva*.” Poor Jackson’s circumstances, and his desire to make a fortune in the gold diggings, induced him to forsake the country of his birth, and tempt fortune in Australia. But Fate was against him, and love of adventure and the hope of being one of the first discoverers of gold in New Guinea, have brought him here, as a sailor on board the “*Neva*.”

Work, however, is burdensome to him, he takes no pleasure in chopping wood, and such offices seem to him unworthy of a schoolmaster and poet. Palmer finds Jackson obstinate and disobedient, and reproves him, on which he takes offence, and daily quarrels follow. Last night they did not content themselves with words only, but came to blows. Palmer being the stronger,

succeeded in getting Jackson down on the ground, and held him there while he administered a sound thrashing.

Jackson, furious as a dog, got one of Palmer's hands between his teeth, and bit it through. The noise brought me from the prow to the scene of combat. I tried to separate the men, but, blinded with passion, they would not attend to me, and only by severe threats could I get them to stop the fight.

As I knew Jackson's ways I had him put in irons, to avoid the danger of a more violent quarrel, with more serious consequences.

Jackson's eyes are swelled, and his lip is split open, Palmer's hand is severely wounded by his opponent's teeth. To be just, I must say that Palmer was least to blame, and that the punishment inflicted on Jackson served him right. For a long time past Jackson has not only been insubordinate himself, but has tried to cause discord on board. This lesson may teach him prudence.

From the appearance of the river banks, of the vegetation, and of some few hills, I infer that we are approaching a mountainous country. On the ridge of a hill, whose base is washed by the river, I saw to-day, for the first time, some tree-ferns.

Since leaving the reed-fringed banks we have been no longer annoyed at night by gnats. But, if we anchor near the shore during the day, we are attacked by a bee, which is quite as vicious. It is small, black, and voracious; there is nothing on board hard, dry, soft, or liquid, which it spares; meat, biscuits, fruit, nothing comes amiss to this tormenting insect.

It has no sting, and therefore causes no pain ; but it is noxious in other ways, for it settles on the hands, on the face, in the eyes, in the ears, in the beard, and in the hair. If one attempts to remove it with one's fingers, it leaves a most unpleasant odour. It comes on board when the sun has hardly risen, and only leaves us at sunset. To get rid of it is impossible ; it exists in such numbers that, though we kill thousands, there is no apparent diminution. On land it lives in old trees, and produces a blackish honey, and wax of a red colour, which is used by the natives in various ways.

This was a bad day. We started late, made little way, and had to anchor early for lack of fuel. To take advantage of the time during which the men were cutting down wood, I went ashore with Waruki, Maino's son. We wandered about in search of game, but hardly found any. I saw several gowras, but all so wild that I could only succeed in killing one, also some wild fowl, with the same result. Although the forest was most beautiful, yet, as both fruit-trees and flowers were wanting, birds were exceedingly scarce.

Relying on the sagacity which we suppose every savage to possess, I neglected to bring a compass with me, or to mark our way, either by cuts on the trees, or by breaking off small branches ; but I soon had to repent of my imprudence, for, after a couple of hours' wandering in the forest, I wished to return on board ; and, finding myself puzzled, I asked Waruki to lead me back to the river. He replied that he did

not know where it was. I shouted, but no one answered me, and I concluded we were very far from the "Neva."

The forest was so dense that we could not see the sun, so as to take our bearings. After wandering for another hour, we had the ill-luck to find ourselves in a wood of sago-trees. The soil was marshy, and we sank in it nearly up to our knees. Last year's thorns were lying in the muddy ground, and they tore my feet, for I wore no shoes. When, after much trouble, we succeeded in getting away from the sago-trees, we found ourselves entangled in rattan and other vines, which literally stopped the way in every direction. Waruki was afraid that we were actually lost, and wept, crying out, "Bapa! Bapa! Maino, Maino." Our progress was necessarily very slow, and at each step we had to extricate ourselves from the thorns which pierced our flesh. When we reached a spot where the forest was clearer, I persuaded Waruki to climb a tree, in order to discover in what direction the river lay. He tried again and again, but had to give it up, on account of the painful bites of the ants which infest the trees. At last, however, the fear of being lost conquered the fear of being bitten; he climbed a tall tree, and discovered the river. After another hour and a half of martyrdom from the thorns, we got on board, and found my people just about to come in search of us.

I had gone into the wood, dressed in Papuan fashion, a semi-Adamite costume, which I had adopted as more healthy, more economical, and better suited to my pursuits in the forest, and I

returned on board, scratched, cut, and bleeding from the thorns, and from several leeches which had attacked me in various parts of the body without my observing them.

With the exception of my face, it would have been difficult to find two square inches on my skin without a scratch.

Waruki, who had wept for fear in the wood, now wept for joy on returning on board, and seeing his father. Maino was no less moved.

During to-day's voyage we perceived neither natives nor houses, but saw a few canoes in different places. These appeared to have been abandoned for some little time, for I could trace no footmarks; they must have been washed away by a subsequent high tide.

*June 15th.*—To-day we made only eight or ten miles. The banks are higher, and increase in steepness as they retreat from the coast; there can be no doubt that the country in this part is hilly. At the foot of one hill, I could see on a level with the water a tract of yellow ferruginous arcuaria, above this was a kind of conglomerate of stones of different sorts. Quartz, silica, and limestone were abundant; above this again the usual red and white clays. My men immediately thought they should find gold; and, taking advantage of a short halt, I decided on examining the quartz, and washing some sand, but it contained only very fine iron dust. I found, however, some fossilized shells, and the tooth of a dog-fish, similar to some that are found in the north of Australia.

Again to-day I noticed some long-forsaken

canoes on the shore. One only may possibly have been deserted a short time before our arrival, for there were recent footmarks on the beach, and some freshly-gathered leaves in the canoe.

There were also two paddles, the most primitive that I have as yet seen. They were bits of wood, in one end of which was inserted a piece of bark. It was not possible to discover the owner of the canoe. In order to excite his wonder, I deposited in his boat two bottles and a knife, articles which he had certainly never seen before.

Towards evening we went up a creek to fish with dynamite. Without doubt, we are now near an inhabited region. Jackson has promised to behave well, and his irons have been taken off. Palmer has a sharp attack of fever.

The next day we left our anchorage at 10 a.m., and continued to steam north. The river is very much narrower, and winds in and out between hills, which rise higher towards the interior. Vegetation becomes richer, and birds are so numerous, that I wish I were able to remain. To an enthusiastic explorer, it is painful to travel as we are travelling just now, without being able to halt.

We had not pursued our way many miles when I observed a rock in the middle of the river. A large crocodile lay on the surface enjoying the sunshine which glorified everything around; but he soon dived under and disappeared, terrified by the noise of the engine.

After this we were proceeding slowly, so as to examine the river-bed, and to avoid the rock, when

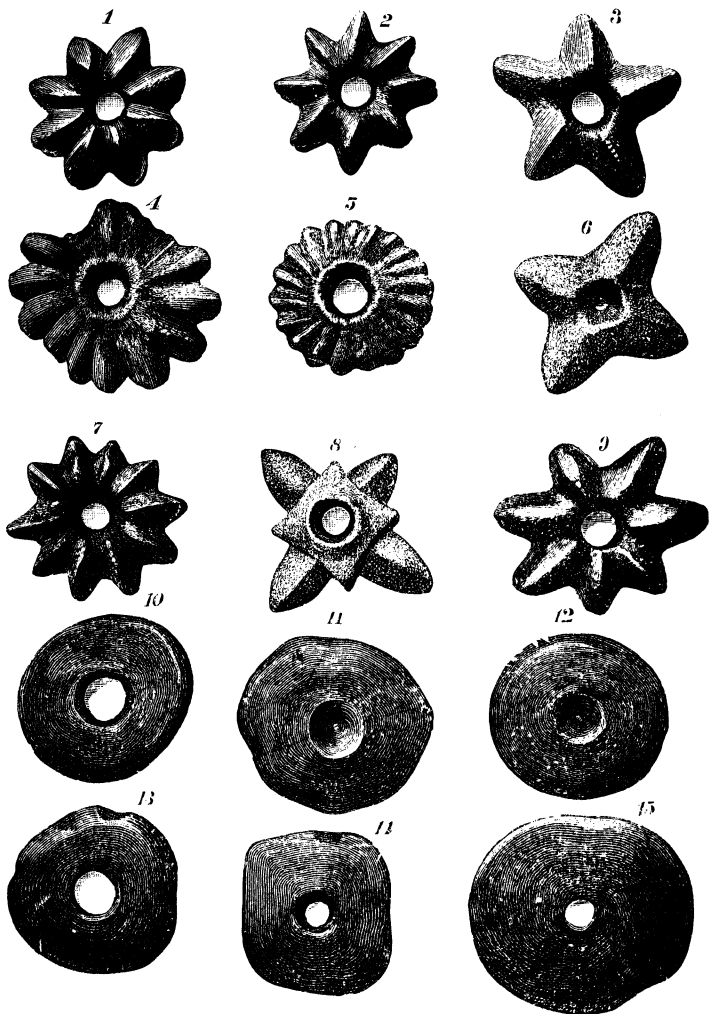


the man on the look-out shouted, "House ahead, and people running away!" Passing by the rock, we turned our attention to the house, and saw some natives armed with bows and arrows fly from it and disappear in the wood. We anchored about fifty yards from the shore, opposite the house, which stood a little back on the bank, which at this point is from twenty-five to thirty feet high. We waited some time, in case any of the natives should return, hoping to enter into friendly relations with them; but we saw nothing more of them, so I decided that we should land and inspect the house, the first inhabited one we had seen in these parts. We climbed up on an old trunk of a tree that served as a stair. Having posted armed sentinels to guard against a surprise, I entered the house, which is about twenty-five feet from the ground. It is of rectangular shape, and I found the interior divided lengthways in the middle, by a wall made of bark fastened together and fixed to the trunks of small trees. The principal door, by which we entered, is in the centre of the front, which looks towards the river, as it were, from four small windows. Another small door opens from the floor in the middle underneath the house. All round the house is a palisade, within which we could see that a quantity of pigs had been kept, but it was now deserted. They had probably followed their owners into the forest.

I remarked that the fireplaces, instead of being on the floor, are constructed below it, and form as it were an addition to it. These fireplaces are rectangular in shape, about three feet wide, a

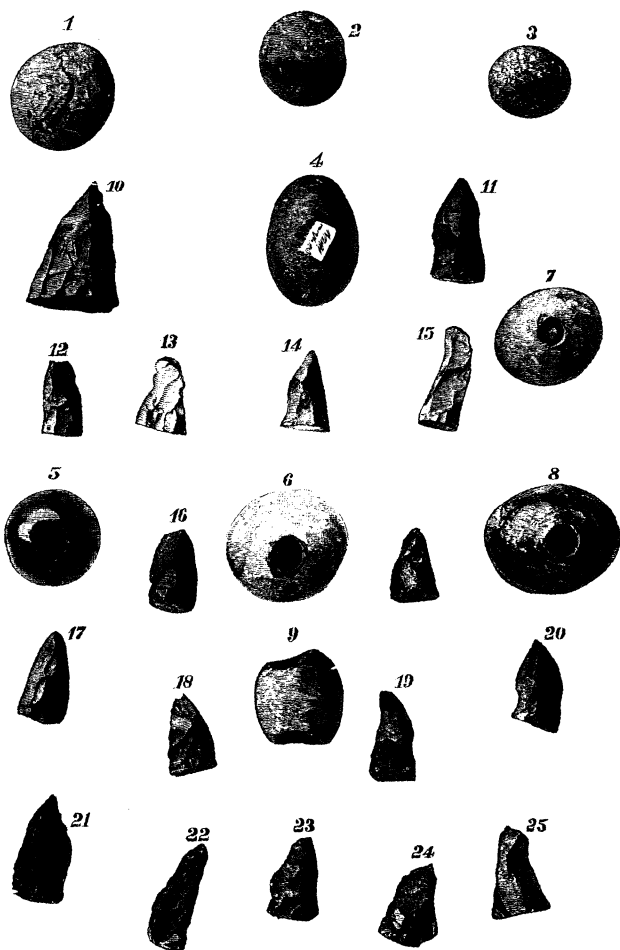
foot and a half in depth, and full of ashes almost to the level of the floor. I counted ten of them. They probably corresponded to the number of the family occupying the house. Above are shelves or platforms on which I saw many articles heaped together. Fastened here and there to the walls were bows and barbed arrows made of fish-bones, such as are used throughout New Guinea. Birds' wings, animals' bones, and a number of other curiosities, also hung upon the walls. I found several stone weapons, viz. hatchets, hammers, clubs shaped like a star, others with a plain disc-shaped head, others oval. Some of the hammers and some arrow-heads seemed to be made of silica, while the hatchets and clubs are made of a green stone, similar to, if not identical, with that generally used for the purpose. The oval-shaped clubs, however, are of limestone.<sup>1</sup> I found garments of grass-cloth, like those worn by the people of Naiabui, Port Moresby, and Orangerie Bay, and in parts of the south-east of New Guinea. I found no human skulls either hanging to the door or within the house. The presence of these garments suggests that the people are of the same race as those who live more to the east, and who may be called the yellow race, to distinguish them from the inhabitants of the south-west and north-west coasts of this large island. Thus the same race, which has risen to the greatest importance at the extremities, is found in the centre, from which we may conclude that the black race is neither aboriginal in New Guinea nor yet the

<sup>1</sup> See photographs.



1—14. Stone club heads—Fly River.  
15. Stone club—Moatta.





1—3. Stone hammers.

4—9. Egg-shaped stone clubs.

10—25. Flint hammers, used by the people of Fly River,  
in the interior of New Guinea.



most ancient of its people. The yellow race, if not aboriginal, is at least the most ancient existing, and has spread over the greater part of the island, while the black appears to be restricted to certain points of the west, south, and north coasts.

Almost all the objects that I noticed resemble those used by the tribes in the east. The house alone is distinguished by having real doors and windows, and by the construction of its fireplaces, which differ from any I had hitherto seen.

The arrows vary much in shape. Many of them have bone heads and would seem from the colour to have been poisoned; others of bamboo are of somewhat novel shape.

I found a few necklaces of dogs' and crocodiles' teeth, such as are used by the tribes in the east. In the bags, which I inspected, I found a number of different articles, cassowary bones, forks made of the bones of birds, and pigs' teeth evidently used as a cutting instrument. The pipes I found here differ but slightly from those used in Kiwai Island, at the mouth of the river, and at Moatta. I discovered only two human jaw-bones and a collar-bone; but there was a great collection of human hair, which, though not woolly, was fuzzy, and also tufts of chestnut-coloured rather than black hair, less fuzzy than the rest. I saw nothing to lead me to think that these people make use of earthen vessels for cooking or other purposes. I remarked that water was preserved in square-shaped vessels made of bark. There is no doubt that the red canoes we have seen during the last two days belong to this tribe, who, judging by their arrows and other objects, and

by their cleanliness and order, have already attained a certain degree of civilization.

All round the dwelling the forest has been cleared, with what labour may be estimated from the number of hatchet-blows the operation must have cost; a medium-sized tree being two feet in diameter.

The clearing is recent, and except a few banana-trees, there is no sign of cultivation. The people must live principally by hunting and fishing, and a successful hunter is doubtless looked up to by the others, and has reason to be proud of himself. Fifteen cassowary heads of different ages bear witness to this. They are fastened by way of ornament to the netted bags which the natives carry on expeditions and journeys. In the same way pigs-tails are used to ornament bags and other things.

The bones attached to these bags are, no doubt, trophies. Among those I found to-day are cuscus, rats, and paramele bones. I was much surprised to finding several hedgehog spines, as I had never heard of this animal among the fauna of the island. I perceived that the natives use them to make their arrows more destructive.<sup>2</sup>

I found, together with a fossil-shell, a dog-fish's tooth similar to one I had found before, the talons and eyes of birds of prey, telagallus' legs, heads of serpents, and other reptiles. These may possibly be preserved as charms. I remarked also the shells of which these people make lime, the gourds

<sup>2</sup> Two species of *Echidnæ* were found almost simultaneously in New Guinea, one at Mount Arfak and the other at Port Moresby.



in which they keep it, and the spatulas they use to carry it to their mouths, and I have no doubt that they not only smoke but also use *siri* and lime for chewing with areca-nut. I also found red clay, such as I have seen chewed, and even eaten, by some of the people of Hall Sound.

They use sago, and I saw a good deal in sacks or rolled in banana-leaves ready for cooking. Like nearly all the natives I have met with, they eat the larva of large insects, which they find in hollow trees. Maino having found some ready cooked, devoured it with extraordinary delight and greed. Nothing, however, can be more disgusting in appearance. I saw several *elitra* of a big *Oryctes*, which is certainly eaten here as at Naiabui.

After having examined everything and taken possession of some of the more interesting curiosities, leaving in exchange knives, glass beads, and pieces of cotton cloth, we returned on board and resumed our voyage up the river.

The depth sensibly diminishes, and to-day we felt, by the grating of the keel, that the bed is full of pebbles, especially as we passed through a creek on the left side, formed by an island which I named Small Island. Nevertheless, on nearing this island, the lead gave three fathoms, and we were able to proceed for a few miles, anchoring at 4 p.m., as our fuel was coming to an end.

During the latter part of to-day's voyage we met two canoes with three men, but before we could get near enough to see of what tribe they were, they abandoned their canoes, and fled into the forest. I threw into the water a plank, on which I

had fastened securely a knife and a piece of red cotton, in hopes that it might fall into the hands of the natives, and induce them to make our acquaintance. The great quantity of stones indicates the neighbourhood of mountains, which, however, are hidden from us by the dense forest, that forms, as it were, two lofty walls along the banks of the stream. However, the width and depth of the water show that we are still at some distance from the source. Meanwhile a fertile field for either zoological or botanical collectors presents itself, and the variety of plants and animals is such as to make the heart of a naturalist beat with joy. Palmer and the others, who have had repeated attacks of fever, are much better to-day.

## CHAPTER III.

The mountains of the interior seen at last—Our difficulties increase—Illness among my people—The Promised Land—Fever on board—A beautiful tree—An extraordinary plant—We begin another week badly—What shall we eat to-morrow?—Tree-ferns—Quartz pebbles—Begonias and nepenthes—We land, and make a raid—Our prizes—Human bones—A primitive kind of drum—Fireplaces—Bags of bones—Are these people of the same race as those of Yule Island and Hall Sound?—Further discoveries in the deserted house.

*June 17th.*—At last I have seen the lofty mountains of the interior of New Guinea !

I have seen them, like giants of different height, towering one above the other, and extending from the principal chain down to the river. But we are still far from these Papuan Alps—forty or fifty miles, or even more. My mind is on the rack. I feel like Moses, in sight of the Promised Land, destined never to enter it !

Although each day we draw nearer the end of our voyage, our difficulties are increasing. Illness is wasting the strength of my people; each day we feel painfully the dearth of provisions, but we know not how to remedy it.

Shortly after starting this morning we found ourselves in only three feet and a half of water, and the "Neva" bumped violently two or three times against the stones of which the channel is full.

On sounding, we found the whole bed of the river perfectly flat from one bank to the other, and with only three feet of water. But on anchoring at two yards from the right bank, we found ourselves in a depth of two fathoms.

Sounding again, we found that we could have entered a small creek with a depth of a fathom and a half, had it not been barred by the trunk of a tree, which was lying across the water. A storm was threatening. Before trying, therefore, to destroy the old tree with dynamite, I decided on putting off our departure until the following day.

Taking advantage of this delay, I landed, and climbed a hill 250 feet high. I measured its height with the aneroid. On the top I found a poor little cabin, lately deserted by the natives, who had left behind netted bags, unfinished plaited reeds, a little resin, some wild bananas, some leaves of a large fern-tree, and a heap of ashes. A good pathway on the ridge of the hill led to this cabin, and continued up to the top. I could perfectly distinguish the high mountain-chain—the very dream of my life just now—and the object of my journey. I remained for a long time ecstatically contemplating those lofty summits.<sup>1</sup> The landscape on which I looked, between us and the mountains, is a series of small ranges, increasing in height as they approach the principal one, which appears to run from N. to N.N.E. All the country visible from this point is profusely covered with vegetation.

<sup>1</sup> I have named this range after the King of Italy, Victor Emanuel.

Judging by the eye, we are about fifty miles from the larger chain, but the distance may possibly be greater. It seems fated that, as we approach the term of our journey, our difficulties should increase. To-day, for example, two more men are attacked with fever.

My provisions of yesterday, when, counting on the rain, I expected to be able to pursue our voyage, were justified. Through the evening and during the night it rained heavily, and consequently in the morning the river was full, and we were able to continue our way. The current being exceedingly strong, we could only make a few miles, and we anchored at half-past one for want of fuel. The notes of some birds of paradise attracted me on shore, and I secured a few young specimens of the *Paradisea Raggiana*.

I noticed to-day, along the banks of the river, a most beautiful tree, with whitish bark and branches, and very small leaves. Its long boughs stretched out and bent, umbrella-shaped, over the water. It is one of the most beautiful trees I have seen in these regions. It bore neither fruit nor flowers.

To-day I met, for the first time, with a plant which I must call extraordinary. It grows on the heaps of stones that abound in the river, and seen from a certain distance, its dark colour, almost black, and its peculiar shape, makes it resemble the scales of a serpent. Its branches lie flat, so as to offer as little resistance as possible to the water. It owes to this curious conformation its power of resisting the strength of the current.

To-day I was pleasantly surprised at seeing a little black and white bird fly along the banks and give chase to the small insects. This small and graceful bird<sup>2</sup> is an old acquaintance of mine, but I had never met with it since the day I first remarked it at Prafi, at the foot of Mount Arfak.

Yesterday I observed a centipede (*scolopendra*) running along a wet rope. It attracted my attention by the phosphorescent light it threw out and left behind it. I tried to catch the poor little animal, but scarcely had I touched it with a pair of pincers than it threw out a quantity of phosphorus, which, besides shining on the rope, fell on the table beneath, illuminating everything with its yellow light, and for some minutes I could gather up phosphorescent matter with the pincers.

I found that a cat-fish (*silurus*), which I killed to-day with dynamite, had fed on very hard palm, and other pulpy fruits.

June 19th.—Another week beginning badly! We have indeed made our way into the interior of the “Enchanted Castle,” as a Brisbane newspaper once called New Guinea; and for this very reason we must be prepared to face the hardest trials and to call upon all our courage and endurance. The spectre of Hunger rises before us in all its horror. Our provisions, however elastic they have hitherto proved, are almost at an end. Birds have become more scarce; and since we have entered a mountainous country, there are no traces of cassowary or wild pig.

Even the fish are few; and, either because

<sup>2</sup> *Monachella saxicolina*

the current is too strong, or because the bed of the river is too full of pebbles, and consequently impoverished, dynamite no longer serves to provide us with food. To keep my people quiet, I talk of the probability of finding gold; but to what extent do they believe me?

If the country continues like this, what can I give them to eat to-morrow? What an incubus this problem—what shall we eat to-morrow?—is to me! Meanwhile the river is becoming narrower and more shallow; the lead is continually in use, yet we cannot avoid shocks against banks of stones, or against trunks of trees, any one of which might be fatal. Even to-day we had the ill-luck to ground three times. After covering seven or eight miles in five hours, we had to come to a standstill while we replenished our fire-wood. While the men were felling timber, I climbed some hills covered with tree-ferns. There are gigantic trees about here, and the forest is almost free from ivy and other small growths. In the little streams at the foot of the hills I found an abundance of quartz pebbles, but no trace of gold as yet. The soil is of red clay, covered with fine begonias and nepenthes.

*June 20th.*—All through last night there were heavy showers of rain, and only late in the morning could I send the men on shore to fell wood. Very strong current, damp wood, and consequently little progress.

At 4 p.m. we came in sight of a banana, taro, and sugar-cane plantation. In the midst of it appeared the roof of a house, while two or three cabins could be seen along the shore. In hopes

of finding food of some sort, we let go the anchor opposite the plantation, and landed. As we approached the banks, we saw something moving among the grass, but we could not discover whether men or animals were hiding from us. We could hear barking, and three dogs ran down to the shore; but so soon as they perceived we were strangers, they went back into the forest. No natives were to be seen. On landing, we found ourselves in a marshy plain, planted with taro and sugar-cane. High grass, felled trees, and quantities of fern, made it difficult to reach the house. We had to make our way over fallen trees, which served as bridges across small creeks. Blondin, with all his art of equilibrium, would certainly have preferred the tight-rope to many of these primitive bridges.

Marching in single file, we proceeded slowly, fearing an ambushade. We reached the house, however, without meeting a living soul, and found it quite deserted. We saw only a small pig, and two or three dogs. The latter ran away. Dawan got hold of the porker, in hopes of taking it away with him to Kataw. But we held a council of war, and the poor animal, notwithstanding Dawan's protest, was condemned to death, executed, and handed over to the cook. On entering the house we could perceive that the natives had left it only a few moments before. On the embers there was food, as yet uncooked. It was probably dinner-time.

We held a general review, and a splendid eel of colossal size, with a few smaller fish, were consigned to the cook for to-day's dinner and



to-morrow's luncheon. Adding to these a little taro, as a godsend to the men, I might feel sure that for a day or two there would be no danger of their dying of hunger. Having examined the contents of the house, I was convinced that this tribe or family differs little from the people who live in the house I visited four days previously.

In the bags I found similar articles, stone clubs, hammers, hatchets, all identical in shape. In some very small bags I found shells, human teeth—one much decayed; birds' claws, and bark used to poison fish in fresh water. In some other bags I found human bones, carefully preserved; the phalanges of the hand, collar-bones, and more frequently the *coccyx*. I also found heads of reptiles and mammals. The women in escaping must have forgotten their garments; these are like those worn in the east, at Naiabui and at Mou. The slight difference in shape consists in one end being shorter than the other.

I saw some bracelets made of rattan, very roughly fashioned; these are worn by the warriors to protect the arm from the string of their bows. I also found a drum of coarse make. It is a piece of a tree-trunk, one end being covered with iguana (monitor) skin, and the other terminating in two points, something like the mouth of some strange animal. I saw no tobacco plants, but some seeds had been preserved by the natives, who smoke pipes similar to those I found in the other house. They use lime and areca-nut for chewing, as they do in other parts of the island. I remarked bamboos, used to hold water, but I saw no earthenware vessels.

Near the fireplaces were several stones heaped together, evidently serving to keep in the heat, and to cook special meats. Over each fireplace was the usual platform, on which were the bones of pigs, cassowary, and crocodiles, and skulls of these and other animals. The crocodile skulls, though spoilt, for the most part, by the fire, were kept with care, and wrapped in large dry leaves.

Neither in this nor in the other house did I see human skulls. May we conclude from this that, unlike the people of the coast, the natives are not head-hunters? And, if so, would it not be another proof that they belong to the same race as that inhabiting Yule Island and Hall Sound? On the other hand, what is the explanation of human bones so carefully preserved in bags, which they probably hang round their necks? It is well to remark here that at Naiabui, at Bioto, at Epa, and at Mou, I myself saw bags worn by the natives, and strongly resembling those which I found to-day; but I could never succeed in obtaining one of them, nor in ascertaining what they contained.

As we must return on shore to-morrow morning to cut wood, and get in a provision of taro, I reserve further details.

*June 21st.*—All the night heavy rain. I could scarcely sleep. We neither heard the voice of any native, nor did we see fire or smoke indicating their presence. We heard nothing, in fact, but the barking of their dogs.

If the fugitives slept in the forest, they must have had a bad night of it, poor fellows, what with fright and what with rain. It poured until

eight this morning, and therefore it was impossible to go ashore before that hour.

While the men were at work cutting wood and gathering taro, I returned to the house, to examine it once more. I found that, on the whole, it was like the one I saw on the 16th, as regards the doors, the windows, and the fireplaces, while the interior was divided into three compartments. This house is very old, smoke-blackened, and dirty. I counted five fireplaces, made in the same way as those in the house before mentioned. On examining some other objects which I had not observed yesterday, I discovered some folded pieces of bark, artificially softened, and stuck full of birds' feathers; and in these was preserved a species of vegetable cotton, which I had seen used in other places, to kindle the fire by friction with wood. I observed some old bows and arrows with bone heads, which were barbed, and pointed in opposite directions, so as to make them more murderous and impossible to extract from wounds; and I found a musical instrument—if so it can be called—common to the whole of New Guinea. This instrument is made of Indian cane or rattan, curved in a bow shape, and to it are fastened dry seed pods, and the claws and mandibles of crabs. It is used for dancing, and the jingling produced by the pods and the bones, is really distracting.

I observed some round logs of wood—probably the trunks of small trees—which bore spiral marks of fire. On examination I ascertained that with these the natives are accustomed to kindle their fires. A piece of rattan about two feet long, and split in two for about half-way its

length, used like a rope round a drill, causes the wood to take fire by its friction.

Something more interesting, however, awaited me outside the house. About a hundred yards away I perceived a small shed of circular shape, which jutted out all round a sturdy old tree trunk, about eighteen feet in height. The shape of this roof, made of palm-leaves, was that of an umbrella or gigantic fungus. The tree which supported it seemed to have been adapted to that purpose, not by accident, but by the hands of the natives. The roof protected from sun and rain a floor about eight feet from the ground, made of small tree trunks, and covered over with a thick layer of leaves, principally of palm. On this floor lay, side by side, two large bundles of bark. Their colour and smooth surface looked like leather. (I never could discover from what tree the natives obtain this peculiar bark.) The packages were tightly and securely bound with rattan and looked like mummies. I contrived to jot down in my note-book with a piece of red chalk the aspect of the place, the roof, and the floor on which they were lying. I had not the least doubt I should find human remains in them, and I hastened to take the two bundles carefully down. On opening the first, I found the entire body of a woman. The bones were in great part covered with the dried skin, almost intact. It was of a uniform red colour, which I believe to be artificially produced with the red chalk so much used by the natives. I think—though I am not certain of this—that the flesh had been removed before the body was preserved, leaving only the





TWO DEAD BODIES PRESERVED UNDER A SHED, INTERIOR OF NEW GUINEA.

skin. The position of the body within its coverings would certainly be a very inconvenient one to a living person. The thighs were doubled up on the chest so that the knees touched the chin, the legs lay straight along the thighs, the arms were placed across the chest, with the hands on a level with the chin.

From the skin only I could have pronounced these remains to be those of a woman, but the skull proved it beyond a doubt. At Yule Island I had suspected that a slight deformity must exist on the heads of the women, produced by their custom of carrying weights from early childhood, in bags, the cord of which passes round the forehead. Now, on the skull lying before me, a little above the forehead, there is a small depressed furrow corresponding to the mark I had observed on the heads of the women of Yule Island. The body was not lying on the bark of which the bundle was composed, but on a soft layer of palm-leaves.

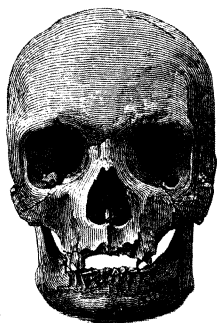
The other bundle contained the skeleton of a man, entirely denuded of flesh and skin. It is my opinion that a great part of the flesh, at any rate, had been removed before the body was enwrapped. Judging from the bones of the skulls, from the few teeth, and from the jaw-bones, especially that of the man, I think these two individuals (perhaps husband and wife) had reached a very advanced age. The skeleton of the man was not in the same position as that of the woman, but stretched out straight, the arms at the sides. The skeleton rested on a layer of leaves, like that of the woman. In neither

case was there any other object, except the skeleton. I repeat that I believe the flesh was taken from the bones before they were wrapped in their envelopes, because I found no signs of corruption, although the man's bark covering was damp, from water having penetrated it. There were numerous insects, and many of their eggs and chrysalids, but not in such quantities as to lead me to suppose they could have completely destroyed all the flesh and the other soft parts.

The bundles being too large for stowage on board the little "Neva," I abandoned the idea of removing them, but I placed the bones in two bags and sent them on board.

Exclaim, if you will, against my barbarity—say that I have sacrilegiously violated the grave! I shall turn a deaf ear; I am too delighted with my prize to heed reproof. The value of these two skeletons, in a scientific point of view, is such that I esteem myself most fortunate in possessing them. Two complete and perfect skeletons, found in the centre of New Guinea, at a time when this island is more than ever attracting the attention of the scientific world—when the so-called Papuan race is a subject of study, and when there is need of genuine materials, which may inspire confidence—come just in time to aid in solving the problem, and are such an acquisition that I cannot admit the slightest sense of repentance. The very object of my voyage is to learn something of this unknown country and of its inhabitants. But these wild and noble savages escape us, and vanish as if by





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SKULLS OF NATIVES OF THE INTERIOR OF NEW GUINEA.



enchantment. At the appearance of the "Neva" they fly as if from a monster or a demon.

If the living fly from us—if they will not tell us who they are—why not interrogate the dead, who cannot get away?

While waiting for the engine to be ready, I set about looking for insects, and found a rich field for the entomologist. I collected several beautiful specimens, which to me, at least, were new. To-day, for the first time, I saw a fine parrot—*Dasyptilus Pesqueti*—which, I believe, dwells by preference, if not exclusively, on mountains—another sign that we cannot be far from them.

Before re-embarking, I deposited knives, cloth, coloured cotton, bottles, looking-glasses, hatchets, fish-hooks, and glass beads, in a little cabin near the shore, so as to compensate the natives, after a fashion, for my sacrilegious theft. The strength of the current prevented us from making much progress. Moreover, at about five o'clock we ran aground, and had to stop.

*June 22nd.*—Our difficulties increase every day. This morning the engineer, the cook, and two other men, are ill with fever. The current also is so powerful that we cannot attempt to breast it with our engines. We are holding by two anchors, which occasionally drag along the bottom, and make us afraid of being swept away at any moment.

Rather than remain idle on board, I landed in order to collect. I killed two gowras and two birds of paradise, and tried for others, but missed them. Insects were scarce. The forest is very beautiful and dense. I saw plenty of *Myristica* (nutmeg),

with fruit as big as the nutmeg of commerce, and which I am sure would reward speculators. The absence of other fruit perhaps made me think it eatable, though its aroma was rather strong.

*June 23rd.*—This morning we resumed our journey, having a depth of water of two or three fathoms. We soon reached a confluence of two streams, and followed the right-hand one, as it appeared the widest. A little higher up there was a rock on the right, a great heap of stones in the middle of the river, and not more than four feet of water. Two violent shocks put us on our guard, as did the lead also. We tried to reverse the engines, but the force of the current caused us to swing round and keel over until we fully expected to capsize. The stream carried us into water about a fathom deeper, and we immediately cast anchor. From the small boat we sounded the river from side to side, and found the bottom to be flat, having but three feet of water.

We hoped that the rain might swell the river during the night, and enable us to resume our way the next morning. It would seem that in these regions rain falls every night, while the days are serene and beautiful. These nocturnal showers, however, are very tiresome to us, and interfere with our sleep, as we must be constantly on the watch to protect ourselves from the trunks of trees carried down by the rapids.

On landing I only succeeded in killing a few small birds. I collected some fine insects and plants. The country is hilly. I noticed numerous footpaths and beaten tracks over the hills, so there is no doubt about its being inhabited.

*June 24th.*—The waters decreased in the night instead of rising, and we must pass the day at anchor. As I heard the notes of many species of birds of paradise in the morning on board, and as the men need rest, I am not so much annoyed by our forced inaction. Two or three of the men came on shore with me to collect, and to see whether by any means they could make some addition to our rations of taro. When we reached the forest, each began searching on his own account, without, however, separating too far from one another. After climbing two or three hills, I reached a height of 300 feet above the level of the river. I found a house fifteen feet long by eight wide, and divided into two parts with bark. Leaves were spread on the ground in both divisions, evidently for sleeping on: these divisions are probably for the separation of the sexes.

In the house I found only a fire-place, and some stones that had served for cooking; a spit made of cassowary bone, a few arrows, a stone hatchet, and some hammers of silica.

To the west and north of this little house the hill rises to a height of 500 feet, or perhaps more; but the dense vegetation prevented my seeing beyond.

Most of the hills rise very abruptly in a cone. They are covered with red clay, and with a stratum of more or less decomposed vegetation. The base of some of them, visible in the little streamlets, is of a greenish sandstone. Quartz pebbles abound everywhere.

We returned on board towards evening, with no great reason to congratulate ourselves on our

success, so far as the larder was concerned. As a naturalist I might be satisfied, since, besides other not uninteresting birds, I had obtained two perfect adult specimens of *Paradisæa Raggiæna*.

*June 25th.*—This morning, on account of the increased volume of water, I hoped to be able to pursue our voyage. We started at nine, after I had preserved in spirits of wine a most venomous serpent of the Australian *Achantophis* family. It is doubtful if it is the same species that is found in Australia, viz., *Achantophis antarctica*, or the Death Adder. We succeeded with difficulty in overcoming the current, and in pushing on for perhaps two or three miles. We used the utmost caution to avoid shocks, but did not, for all that, escape them.

Twice or thrice we luckily succeeded in getting clear off; but at last, at a bend in the river, while we were trying to round the bank on the right, the current caught us, and flung us against a big tree that was lying in the bed of the river. The shock was terrific, and the "Neva" heeling over, first on one side, then on the other, so as to ship a good deal of water, all on board were thrown into confusion which lasted long enough to make us fear the last hour of the ship had come. Maino and Waruki, terribly frightened, wept for their native village. It might have been hoped that the current would have drifted us into deeper and calmer water, but an anchor we had cast at the beginning prevented this, and the "Neva" grounded on a bank of pebbles. To render our position still more critical, a piece of sail-cloth had fallen overboard, and become en-

tangled between the screw and the rudder, rendering both useless. During the day the water fell so much that two-thirds of the "Neva" was perfectly dry, and we could land without getting wet. I feel that our position is critical, and that only heavy rain can save us. And the natives? My men, it is certain, will sleep with some apprehension!

Although it rained in the night, the waters did not rise high enough to float us. Some of the men went in search of food, but they were not fortunate. Half a mile off, I had observed a small island, on which were several cultivated bananas; the men used a canoe that they found on the shore to cross the river, and reach the plantation. The bananas were good; but, on the men's return, they found the canoe capsized. They contrived to save the bananas, but I believe they saw some natives, and were afraid of them, for, in their haste to get on board, they left the fruit in the forest. We had heard the barking of dogs, but had seen no natives.

On the bank on which the "Neva" is now resting, I found impressions of sea-shells and corals of apparently recent date. There was an abundance of quartz stones, quartzite, basalt, limestone, and others of volcanic nature. I have no doubt that the basalt and other volcanic stones belong to the principal chain of mountains, which traverses a great part of New Guinea, while the fossil prints and corals prove the uprising of the lower part of the island at the south of this Alpine chain.

*June 27th.*—All night the rain prevented sleep;

but the hope of being able to get away once more, enabled me to disregard that. Towards six the water rose so high that I sent the men in the boat to raise the anchor, and try to draw us off the stones. Whether from the strong current which impeded exact manœuvring in the boat, or from the stupidity of one of the men, it so happened that one end of the anchor damaged the boat to such an extent that it became necessary to suspend the operation, and to repair the boat in the first instance. The water soon fell again, and we remained aground, and began to overhaul her. I left Mr. Hargrave with some of the men aboard the "Neva," and with the four others I went on a forlorn hope to search for an addition to our meagre store of taro. We walked half a score miles, made easy by good footpaths, over the hills, which rise one above the other, as they recede from the river. We did not climb higher than 200 or 250 feet, because I wished to follow as closely as possible the course of the river, which in some parts runs at the foot of perpendicular hills, and is so narrow that the "Neva" would with difficulty find space to move. In others it is wider, but from the gurgling of the water I conclude there is little depth. I reckon that we went up stream about five miles from the spot where we left the "Neva." The course of the river appears to be north-north-east.

To-day, for the first time, Palmer and Jackson accompanied me to the forest. I had also Bob and Johnny with me. As the two former are not accustomed to go barefoot, and still less to



journey in the forest, they were more hindrance than help.

Jackson, too, had the ill-fortune to disturb a wasp's nest; the insects revenged themselves by stinging his neck and face severely. He was behind me when this happened, we were climbing a steep hill. I do not know exactly how it occurred, but I heard him cry out, and, turning round, I saw him fall to the ground, clasping his face and neck in his hands. When I could distinguish what he said, I found he believed himself to be wounded by a flight of arrows; and it was not without trouble, nor without wonderment on his part, that he could be persuaded nothing worse was the matter than the stings of an innocent insect, avenging the destruction that Jackson had unwittingly inflicted on its nest.

Birds were scarce, and I only succeeded in killing two gowras and three cockatoos. I saw no traces of wild-boar, cassowary, or other mammalia. This forest is the most beautiful I have as yet seen, although there are no flowers. But palms, large and small ferns, musk, orchids, nepenthes, begonias, and a hundred other creeping plants, many with variegated leaves, arrest at every step the traveller who can understand and admire the wonderful works of nature. I believe that one feels the pain of ignorance, when alone with nature, more than in the company of men; and that in presence of these beautiful pages of nature's book, man experiences the wish for knowledge, and the need of study.

I would have stopped at every moment to observe and to collect; but there was no time to lose,

and the care that chiefly engrossed me was the finding something to kill and eat. The men were all suffering from want of proper nourishment; and although taro is sustaining, it must be allowed that it is not sufficient for people unaccustomed to it.

Towards evening we returned on board, tired and hungry. The waters are so low that the "Neva" is on dry ground.

## CHAPTER IV.

The engineer pronounces and certifies—A tremendous current—We revisit the deserted house—Armed Natives—They fly from us—A dreadful spectacle—Maino's explanation—Snake Point—Difficulties—The lure of gold—A war of birds on insects—Illness on board—Traps for wild pigs—A light-coloured tribe—Large houses—Illness and semi-starvation—Things look very bad indeed—A lovely scene—We inspect more houses—We see canoes and Natives, but they vanish—Temporary supplies

*June 28th.*—This morning, in consequence of the heavy night-rain, we found ourselves floating freely, though not altogether out of danger. Towards 8 a.m. we were ready to start, the anchor was weighed, and I gave orders to proceed, and to try the passage again, in which we had stuck fast on the 25th. But the current was too strong, and could not be overcome. I thought I would take counsel with the engineer, who informed me that the "Neva" would not be able to get through. I wished him to state this in writing in my journal. He consented, and wrote as follows :—

"Signor D'Albertis has asked my opinion about the possibility of the 'Neva' proceeding up the Fly river. I have said, 'She cannot; the current

is six or seven knots, the channel narrow, the eddies make the rudder useless.'

“(Signed)      LAW. HARGRAVE.”

I then thought I would turn back, at least so far as the taro plantation, in order to lay in a provision of taro, for that which we had taken was exhausted. My men waited in silence to know what I intended to do. When they heard that, yielding to circumstances, I had given the order to turn back, they could not conceal their joy. But what was pleasure to them was pain to me. To be so near the end, and to turn back! Yet, is it possible to go forward? All the men, Waruki and myself only excepted, have been, or are, more or less ill from fever, and, moreover, they are much weakened. Shall we abandon the “Neva,” and go by land? But whither? At least 400 miles divide us from the only spot to which I can return, i.e. Hall Sound, below Mount Yule. Not one of my men is strong enough for so long a journey. On the other hand, we are without provisions, and we have already many times experienced that we can only procure enough for a single meal with our guns in one day.

In my own mind I thought we might attempt the deeper water of the Fly at the confluence at Snake Point, and meanwhile try and replenish our taro. I have not yet lost all hope of meeting the natives, becoming friendly with them, and of obtaining food, and perhaps guides from them.

We turned back, and, thanks to the rapidity of the stream, in a few hours we anchored

in front of the house we had seen on the 20th. On arriving we neither saw nor heard any living creature. We at once disembarked, to lay in a store of taro, and I passed the time in collecting insects, and killing a few small birds. Before one, I had obtained some specimens of the *Campephaga sloetii*, a rare bird, although it is also found in the east and west of New Guinea, where I killed some in 1872 at Ramoi, and in 1875 at Mount Epa.

I was not a little astonished to find that the natives had either not yet returned to their house, or else that they disdained the gifts I had left for them on the 21st. I believe they had not returned, for I perceived no footmarks. The trunks of old trees in this plantation are frequented by insectivorous birds, and by parrots, who build in the hollows. I succeeded in killing one *Cyclopsittacus*, who was just hatching two eggs in a hollow tree.

June 29th.—We could not start before 9 a.m., but a tremendous current bore us along at a speed which I may call frightful. We soon came in front of the house we had seen on the 16th, and resolved to revisit it, in the hopes of finding pork. When in sight of the house, long before we could distinguish any natives, we heard their voices, either from the doorway, or the steps, or the front of the house. They were armed with bows and arrows. A man advanced to the river side, and deliberately shot three arrows in our direction, but without hitting us. I made signals of peace, holding up red cloth and other gifts, but nobody took any notice of

me, and more arrows were let fly—short of the mark, however.

Thinking to make the natives desist, we fired a few times in the air; but they apparently did not understand, for instead of flying when they heard the report, one of them took to the water, whence he might discharge his arrows from a nearer point. This was becoming dangerous, so I gave him a taste of our very smallest shot, which caused him to retreat. The others had withdrawn behind the house, and were flying into the forest. Two canoes with natives now showed themselves at two or three hundred yards behind us, coming in our direction. Two shots from a revolver, sent splashing into the water close to the canoes, prevented them from approaching nearer. When all on board was in a state of defence, in case of attack, I disembarked with some of my people, in hopes of meeting with the natives, and coming to an understanding with them, notwithstanding this unfriendly beginning.

But no one was visible in the plantation, or near the house. Even the pigs had followed their masters into the forest. We entered the house, where a sickening sight awaited us. At the farther end, we found an old woman, blind, and shrunk almost to a skeleton, lying near a fireplace with her skull driven in, and part of the brains scattered on the ground. She was still living, though insensible, and in the last agony. The trembling of the limbs showed that life was not yet extinct. From her appearance, I think she must have been at the point of death before the mortal blow which was

to end her days had been dealt. Her forehead seemed to have been fractured with a stone; the wound was two inches long. A doubt whether my unfortunate shot might not have killed her, made me feel very uncomfortable; but on carefully observing the nature of the wound, the position of the house in which the wretched creature was lying, and recollecting that no shot had been fired directly towards the house, and that the revolver had only been discharged three times in the air, the doubt was dispelled, and my remorse with it for that which I must have called a crime. Some of my men, born in savage lands, and who know the habits of savages in general, told me that in all probability the poor creature had been killed by her own people, who, not being able to carry her away, on account of her blind and perhaps dying condition, had thus ended her life, that she might not fall living into our hands. Still, I cannot but deplore the barbarity of these people, and also the fatality which brought us to this spot to-day.

We hastened to leave this scene of horror, observing, however, that since our first visit the natives had laid in a store of black honey, of which several bark vessels were full. I also remarked that they had made use of the hatchets, the knives, the cloth, and the other articles that I had left for them on the 16th. I think that should have led them to receive us better this time. Returning on board we continued to descend the stream, and about ten miles lower down we perceived a canoe with three men. No sooner did they catch sight of us than they began to fly; then springing on

shore, they abandoned their canoe. In vain did I try to induce them to communicate with us. We passed close to the canoe, and saw that it contained bows and arrows, and a stone hatchet which the natives had left behind. It was, besides, filled with bags containing sago. In our position we could not but believe that we had a full right to appropriate whatever the natives had abandoned, and were truly grateful to Providence for this food, regarding it as a special mercy.

On the last day of June we arrived at Snake Point. A murmur of surprise, and perhaps more, arose when, having reached the mouth of a tributary which joins the Fly above Snake Point, I gave the order to enter it. I wished to explore it as far as possible.

Maino, Waruki, and Dawan indulged in excessive grief, and for a while I tried in vain to calm them by promising them double pay. Maino remembered his beloved ones, his wife and children, and the other two their friends. They begged me to go no farther, otherwise, they said, they should all die, and never again see Moatta.

Their lamentations, however, turned to my advantage, for my own men, wishing to show themselves superior to the three savages, concealed their reluctance to enter on new adventures, and also perhaps their fear. The creek that we are to explore to-day is about 150 yards in width. The left bank is covered with scanty vegetation, the right with dense forest. The depth of the water varies from three to five fathoms.

The Hon. Colonial Secretary of New South



Wales, to whom I am indebted for obtaining from the Governor the grant of the "Neva," had expressed a wish that in the event of my discovering a lake I should call it by the name of Miss Alice Hargrave. As I had not had the good fortune to discover a lake, I thought I might call the newly discovered river after Sir John Robertson's fair friend, and this day I marked it on my map with the name of "Alice." We sailed to-day four or five miles up the river.

*July 1st.*—With the first day of July, we continued to ascend the new river; I am still full of hope, the others are more or less resigned to tempt fortune again. My discourses on the possibility of finding gold—skilfully addressed, first to one, then to another—have had this effect, that the men remain quiet, and endure with patience many privations which they would not otherwise have borne without murmuring.

The depth of the river, from four to five fathoms, is encouraging. Some old houses on the right bank, and a raft made of two big tree-trunks bound together, show that man is not far distant. During the first seven or eight miles of our progress to-day, we could see the interior of the country, low-lying and sparsely wooded; but after passing an inconsiderable hill of red chalk, the banks were much higher, and covered with fine trees. There is no variety among the birds; but to me it is always pleasant to hear the notes of the *Paradisea apoda*, the *Ragiana*, the *Seleucides*, the *Ptiloris magnificus*, and many other beautiful species which I have seen to-day. For the first time I saw thousands and

thousands of *Eos* flying by, on their way from the east to the north. I knew that this bird is found at Port Moresby, though I never met with it at Yule Island ; but I remember it was very common at Sorong Island (in the north-west), where it came at evening in thousands to settle on the highest trees, flying off again at dawn. In my wanderings in the forest by daylight, I never came on any of this species.

*July 2nd.*—We still continue since the 29th to ascend the river Alice, and we only stop towards evening. On account of the strength of the current, we have not made many miles.

In the afternoon we enjoyed a new and curious spectacle, the merciless war waged by the birds on innumerable insects. Among the most remorseless of their enemies are the *Calornis*, the *Artamus*, the *Graucalus*, and the white-headed hawk (*Haliastur girrenera*). Not only in the air have they enemies, but in the water also ; for when they brush the surface with their exquisitely delicate white wings, a thousand voracious fishes, large and small, make them their prey. The numbers of these insects are, however, so great, that, no matter how many their enemies, there is no apparent diminution. For miles the surface of the river, from side to side, was white with them as they hung over it on gauzy wings ; at certain moments, obeying some mysterious signal, they would rise in the air, and then sink down anew like a fall of snow, as they again brushed the surface of the waters.

I got into the boat to observe this interesting insect, and collect some specimens. I soon

perceived that the males were in immensely disproportionate numbers to the females. So far as I could judge, I should say that there was but one female to every five or six thousand males. It is easy to recognize the female her wings are marked with black, while the males are all white, or a yellow cream-colour. I succeeded in capturing only three females to over a hundred males; but this is not at all the proportion they bear to each other, for I took in fact all the females I could, and did not trouble myself about the millions of males I could easily have taken at the same time. On account of their scarcity, the females were the objects of the attentions of the males, and at the same time their victims. The only three females that I succeeded in taking floating on the current were covered with twenty-five or more males, who were fighting for the poor little insect. While the more fortunate ones (perhaps the strongest) held her tight between their hooked front legs, the others above them fought desperate battles to obtain possession of her. I saw clusters as big as my fist pass by in this way; and keeping my eyes fixed on them, I almost always saw them come to an end in the maw of some voracious fish.

Besides their difference in colour from the males, there are wanting in the females two long hooked curves from the front and the back with which the males are provided, and which seem to be specially adapted to the functions of reproduction. This insect when skimming the surface of the water uses as a rudder three threads, supplied from its posterior

parts, and seems to be provided with a tail. Helped perhaps by its legs as well as its wings, it attains a velocity which, compared with that of the "Neva," would be four or five miles an hour, or even more; but when flying high its flight is heavy, it seems to experience some difficulty, and flies much more slowly.

I saw many of these insects carried away by the current; not having quite emerged from the chrysalis, they were unable to fly. Several of those which I caught, and liberated from this envelope, immediately flew away.<sup>1</sup> A little before anchoring for the night—at sundown—five *Paradisea apoda*, adults, crossed the river from bank to bank. The last rays of the sun gilded the long yellow feathers of their sides for an instant. Never until to-day had I been able to contemplate the magnificence of this bird, since in the forest one cannot enjoy its beauty during its short flight from tree to tree—or rather, from branch to branch. These details may perhaps weary the reader of this journal; for they are trifles; and to a passionate observer of the beauties of nature, they are sufficient to procure forgetfulness of a long day of vexations and fatigue. They suffice to make him endure privations and inconveniences, they strengthen him to brave the perils of climate, and a thousand others which assail those who spend their lives in similar conditions to those in which I am placed.

*July 3rd.*—Several of my men are ill to-day. I resolved this morning to give them a rest, and

<sup>1</sup> This interesting insect was named *Palingenia papuana*, n. sp., by Mr. A. E. Eaton.

remain at anchor. I myself have a pain in the shoulders, which makes me fear I have taken the germs of the ugly disease we call fever; and I do not feel sufficient strength to accompany the few healthy ones who have gone out on the quest.

When they returned on board they informed me that the forest was evidently much frequented by natives, though they had not succeeded in seeing a living soul. They described some traps to catch wild pigs, set by the natives close to sago-trees. From the description, these traps must be similar to those in use at Hall Sound. Among the birds they brought me is a magnificent specimen of the *P. apoda*; and I am now convinced that it is really the *Apoda*, and not a new species. The fact of finding this species in New Guinea, which until now I had believed to inhabit Aru Island only, is important in itself; and the more so that among naturalists some had affirmed and some had denied its existence on the continent of New Guinea. The only notable difference, in my opinion, between this bird and that of Arru is in size; but I do not consider this difference of specific value, since size is exceedingly variable in individuals of the same species, and variation is found in nearly all species.

*July 4th.*—Yesterday evening, after writing up my journal, I was attacked, not with fever only, but with such atrocious rheumatic pains in my arms and legs as almost to drive me mad, and I was obliged to remain lying down the whole day. Nevertheless, I gave orders to proceed as usual, and we started at 8 a.m. We passed

by some old houses ; and noticed some little tributaries, and two small islands. The banks are not much above the level of the water. The forest is rich and beautiful. Towards 3 p.m., when near another small island, a crash warned us that we had once more struck on a bank of stones, and I thought it prudent to stop and cast anchor, and wait until rain should increase the depth. I could no longer stand upright, so violent was the malady that had attacked me. Palmer, and especially the cook, are, I hear, very bad ; and the others are all on the sick list, some more, some less ill. It is hard now, so close to the end, to see my people fall ill one after the other, when, perhaps, the moment is at hand when all our strength will be required. This reflection is more painful than the aching of my limbs.

*July 5th.*—I must admit it was fortunate the waters did not rise, and that we could not proceed. Both the crew and myself need a little rest. I think I am conquering my illness. Medicine, the application of iodine, and vapour baths, have driven out the fever, and, to a great extent, the rheumatic pains also. My legs, however, seem paralyzed, for I cannot use them, and I fall when I try to stand upright. I can, however, sit up to read and write, and give a glance at the forest and at the passing birds. I could even use my binocular glass, and observe five or six natives who suddenly appeared this morning on the left bank. When I saw them they seemed to be curiously examining the new monster which had insolently invaded these solitudes, where nothing is heard but the

song of birds, the grunting of pigs, and the war-song or chant of victory of the savage hunter or warrior; and where the groans of a victim, but yesterday a victor, may echo.

They were armed, but displayed no hostile intentions. They seemed rather to be interested in the novel object before their eyes. After a few minutes one of them turned his back, and struck his thigh, saying something which was certainly not complimentary to us. On this they withdrew into the forest. At Hall Sound I had seen the natives use the same gesture as an insult, so that I was not sorry to see these same natives reappear, a little later on, nearer to us, when we could return their salute in our own fashion. A well-aimed rocket fell and exploded a few feet beyond them; and this was enough to make them not only retire in haste, but fear to show themselves again.

As well as I could make out with the glasses when they were nearest to us, these natives were tall men, their skins were not very dark, and their hair was short.

One of them was so light in colour he might easily have passed for a white man somewhat bronzed by the sun. I think we may exclude the possibility of this man's being an albino, for his hair was dark brown, or black. If I am not mistaken in my observations, this is an additional fact to confirm the opinion I have formed, that the interior of this great island is inhabited by the same race who dwell in the eastern part. The man's insulting gestures, the pig-traps, the use of clothes, the fact that they are not head-hunters,

and the light-coloured skin, are all arguments which must have great value, at least so long as the country is not thoroughly explored and studied.

To-day two of the men only went on shore, but they failed to kill any game. They report that they have seen a plantation and a house. To the sick-list of yesterday another patient has to be added to day.

*July 6th.*—All night a deluge of rain fell, and this morning the river is full. When the engines were ready we started, but could not prevail against the strength of the current. With much expenditure of time and trouble we got about a mile beyond our anchorage, but had to cast anchor again in order to renew our supply of fire-wood. We approached the left bank, which at this point is about thirty feet high, with a few houses on it. All those in health disembarked, but I, being as yet unable to stand upright, had to remain on board with the other invalids. What I am now about to write is from the report of the men who landed. Three detached houses occupy the middle of a large square, cleared from the forest, and now under cultivation by the natives. The first of these three houses, visible from the river, is built on piles, as usual in this country, and its floor is about twenty feet from the ground. It is almost square, measuring fifteen feet by eighteen. The roof is in two slopes, about ten feet high in the middle, and slants down to the walls, which are only four feet in height. The interior is divided like that of the house we saw on the 16th.



It contained nothing but the fireplaces, which, instead of being against the walls, were in the middle of the room. As the other houses were similar, there is no occasion to describe them. The third, however, deserves special mention, on account of being built on a tree, so that its floor is nearly fifty feet above the level of the ground. It is perfectly square, each side measuring twelve feet.

I had seen similar constructions at Naiabui, Bioto, and Epa, where they served as places of defence in case of attack, and as observatories, whence on occasions the natives may discern the approach of an enemy.

My men found the doors of the houses shut, but they were easily able to get through. The natives had taken everything away with them. Nothing was left, except some cassowary bones, some red chalk, and a large stone hammer. One very important object only had been left behind in one of these houses. I say very important, because, so far as I know, it is the first one found in New Guinea. It consists of a cuirass or armour ingeniously made of rattang. The engineer was afterwards fortunate enough to find, and bring on board, the skeleton of a child wrapped in bark.

In the plantation there were but a few cultivated bananas. As soon as our fire-wood was laid in, we started again. About a mile farther on, the river narrows very much, and consequently the power of the current is greatly increased. With all the strength of our engine we could not conquer it; and when we lessened the pressure, the

stream took us back in a few minutes to the same spot, opposite the houses, from whence we had started.

I called the engineer, and directed him to try at any cost to conquer the current; but he answered that he had already done everything in his power and could do no more. At high water he



Cuirass or Armour made of Rattang.

added, we could not overcome the strength of the stream; and at low water we had not sufficient depth. I requested him to give me his reply in writing, and he consented to place in my journal the following declaration:—

“On the 6th July I tried twice to steam up the

second rapids of the north-west branch of the Fly River, and failed. Signor D'Albertis asked me if I could steam farther, I said No.

“(Signed)      LAW. HARGRAVE.”

Although much against the grain, there was nothing for it, after this declaration, but to give the order to turn back. For the reasons already stated, and because of the increased illness of all on board, I am now obliged to renounce, at least for this year, all my dearest hopes, and must resign myself to leave the fairest part of my programme unfulfilled.

We are anchored below the three houses described above, and shall remain for the night, as the men are fatigued, and unable to cut down the fire-wood we require.

*July 7th.*—This morning the men who were able to go ashore were rewarded for their trouble, for they succeeded in killing two fine pigs. A real gift from heaven !

We are all so weakened, either by the fever, or by a diet of sago and taro, that we feel instinctively the want of flesh meat. Jackson and Tom, whose religious belief binds them to abstain from unclean meats, are so convinced that pork is superior to taro bulbs or sago flour, that the one forgets the Koran and the other the law of Moses.

When I gave orders for beginning our return voyage this morning, what joy shone in the faces of my people ! Many of them had almost given up the hope of ever again seeing their own country. I understood and sympathized with them. What interest can they take, what ambition can sustain

them, in a voyage like the present? They have no intelligent interest in it, but suffer from all its privations and hardships, without any compensation; and it is natural that they should long to return to an easier life. But oh, the difference to me!

As if in contempt, the stream bore us hurriedly along, and we are now at anchor in the Fly, ten miles below Snake Point.

On the 8th, 9th, 10th, and 11th we continued our homeward voyage, without meeting with anything remarkable. We saw no natives, but at one place we saw five or six canoes, and some cabins of recent construction. Illness increases, I am reduced to a skeleton, although partly recovering my strength. It seems strange that in four or five days a man can lose so much flesh. On the 12th we reached the small cocoa-plantation, where we had made a brief halt as we ascended the river on the 3rd June, and stopped there again to-day to gather some cocoa-nuts. We were surprised to perceive a new village, about half a mile from the plantation. Several natives were in the village, and from their tranquillity we may conclude they were not aware of our presence.

I was immediately taken with the idea of gathering cocoa-nuts, and visiting the village in hopes of establishing friendly relations with the natives. The tract which lies between us and the village is entirely covered with grass, but without any other kind of vegetation. We thought it might be easier to reach the village by the creek—we had seen a canoe paddle up it. We turned back

a little way, and as we were nearing it a canoe with three natives, probably come out to reconnoitre, made its appearance. We cast anchor on the side opposite the little entrance we had found. Leaving some men to guard the "Neva," I took the others in the boat, and we entered the creek, which runs between two impenetrable banks of reeds. With great labour we made our way, by rowing and punting, up the narrow creek, doubly difficult by reason of a weed which grows under the water. After proceeding thus for more than half a mile, we came to a solitary tree, which I sent Dawan to climb; and he reported that we were still far from the village. Curiosity, however, urged us to see for ourselves, and the tree presenting no difficulties, we almost all climbed it. We were grievously disappointed to discover that we were farther from, rather than nearer to, the village; and the tract which now divided us from it was marshy, and entirely covered with tall canes which render it almost impracticable. Confusion seemed to reign in the village—a sign that we had been discovered. Seeing that to reach it from this direction was impossible, we returned on board the "Neva," in hopes of discovering some other creek, more direct, and near the cocoa-nut-trees, in the spot where we had first perceived the canoe.

We soon came close to a small creek, whose mouth, hidden among reeds, had escaped us the first time. We immediately entered it in the boat, leaving the "Neva" at anchor. This estuary, although larger than the other, is not less intricate and difficult of navigation, on ac-

count of its aquatic plants. Very soon, however, we found ourselves in a large lake, its tranquil surface almost covered with beautiful nymphæ, with wide leaves and large white and purple flowers, and a thousand other lovely water-grasses.

Great numbers of wild ducks (*Dendrocygna* and *Nettapus*), startled at our appearance, flew away screaming, in all directions. On the shores were many other aquatic birds, among which I remarked a species of the *Lobivanellus*. What most surprised me, however, was to catch sight of a gigantic *Ardea* (*Mycteria Australis*), an Australian bird, which now for the first time I found in New Guinea, and which, so far as I know, has not yet been observed by any other traveller. It passed so close to us I could easily have killed it, but for fear of alarming the natives I would not use my gun. The sun now began to sink, casting his level rays across one of the most lovely landscapes I had as yet seen in New Guinea. A low hill, covered with luxuriant vegetation, was mirrored on one side of the lake; on the other was the village, its houses also reflected in the waters; and all around and behind us aquatic plants, grasses, reeds, and birds. We are opposite to the village, from which we are still 150 yards distant. We are but seven, and the natives are in crowds. We can see that they are in a state of the greatest fear. They are all laden, and are hastening—flying—towards the hill, where they disappear in the thick forest behind it. None appear curious to see who and what we are, or to discover what we want. The efforts I make, with





SKULLS OF NATIVES OF THE INTERIOR OF NEW GUINEA—COCOANUT VILLAGE.



signs and words, to induce them to remain, seem to frighten them still more, and they continue their flight. A few, however, stay behind in the village, and are busily removing property which perhaps they might otherwise fear to lose. After a few minutes the place was quite deserted. Farewell to the hope of making friends with them! Some fat pigs, and a great many dogs, remain to do the honours.

Notwithstanding that I had given orders on embarking that no gun should be discharged, we had scarcely landed when a shot was fired at a porker. The shot did not kill the pig, which ran away. This was enough, of course, to take from me the last faint hope I retained of being able to parley with the natives.

Meanwhile, Bob was trying to entice two other pigs with sago, so as to take them alive. The first attempt did not succeed; but the porker was stopped by a ball as he was eluding Bob's blandishments.

Bob afterwards tried again, and succeeded in catching a medium-sized pig, and carrying it, a living prisoner, on board. Pig-hunting being over, we inspected the houses, which, in point of fact, are but roofs—some square, some round. Many of the usual bags were opened, but for the most part they contained nothing new. We found an extraordinary number of arrows—literally thousands. We found also stone-hatchets, but differing somewhat in shape, and as to their handles, from those we had previously obtained. We also discovered sundry packages of bark, containing one, two, or more human skulls, dyed red.

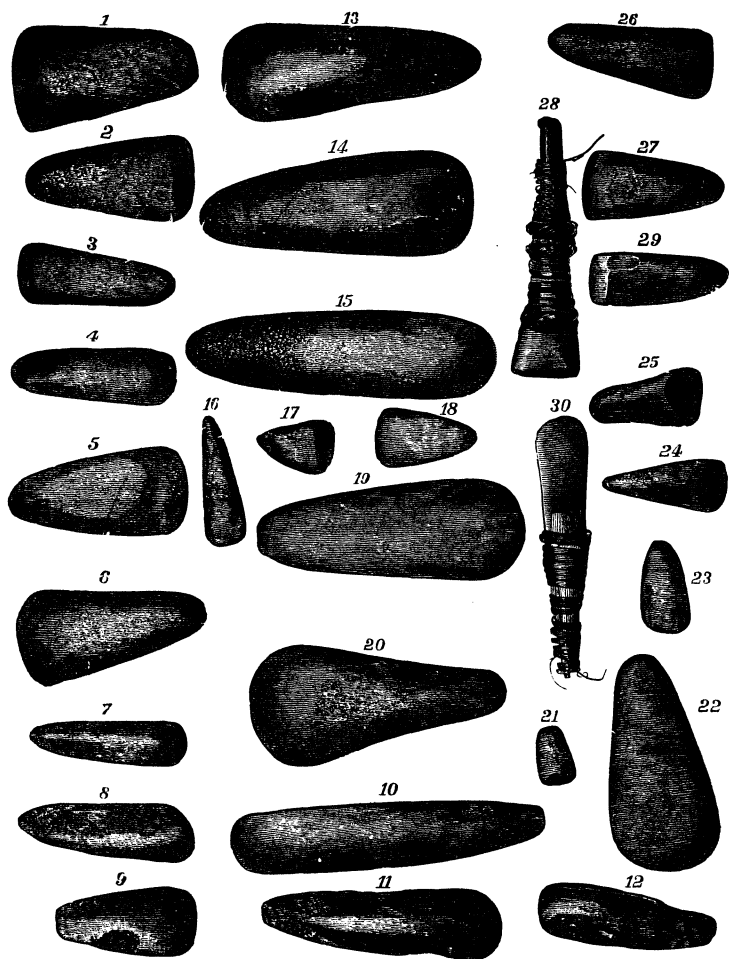
While we were intent on searching after new curiosities, we perceived three canoes, with five or six persons in each on the lake.

We ran to the bank to see the new comers, who were still at about 200 yards from us, and seemed unaware of our proximity. Only two of us were white men, and these so bronzed by the sun that, with our long black beards, we could scarcely have been recognized for white at first sight. Waruki, and then Dawan, who were naked, being in the front line, with the other dark-skinned men of my party, were certainly not immediately detected.

The canoes continued to approach, and we kept quiet, so as not to alarm these natives—the more so, that we had perceived they were all women.

But at a certain point a doubt seemed to rise in their minds, and, stopping their canoes, they began to converse in an agitated way, and with very lively gesticulation. Then, seeing we were discovered, we invited them to come to us; but they, having ascertained we were neither their brothers, nor their husbands, nor their lovers, but strangers, remained for some minutes perplexed, like people who see, but cannot believe their eyes; then, bending to their oars, they returned by the way they had come, and in a few moments had vanished behind the hill.

At dusk we returned on board, all of us well pleased—I, because of some interesting objects I had obtained, and my men delighted to know we were provided with meat for at least a week.



1—6, 9. Stone axes used by the people of the village visited on the 16th June, 1876—Fly River.

7, 8, 10, 11. Stone axes found in the village visited on the 20th of June, 1876—Fly River.

12—30. Found in the village visited on the 12th July, 1876—Fly River.



## CHAPTER V.

An embalmed head—"Baratu"—No bags—Drums—Fighting array—Flight and the bag and baggage system in action—A rare bird—Opposite Kiwai Island—A strange building, and an impressive scene—I purchase a buceros, and have some trouble in getting possession—Mibu—Our sufferings — My apprehensions — An alarm—Our poor sheep.

*July 13th.*—This morning, very early, we returned to the village, to cut some fire-wood, and to give a last look at various things we had hastily examined on the preceding evening. I saw little really worthy of notice. One object only rewarded the trouble of going ashore. This was the embalmed head of a man with nothing remaining on it but the skin, from which the skull had been removed by means of a long cut at the back. The skin had afterwards been stuffed in such a way as to retain the natural appearance of a head. It has the defect of being too much stuffed. The dried ears are much too small. The eyebrows and hair, and some hairs on the face, are well preserved. The mouth is wide open, and like the eyes, is full of dry earth. Some streaks of colour complete this work of art, which is alike horrible and ridiculous. I will now enumerate the objects which I saw. Skulls painted

red, ornamented with marks cut on the forehead. Almost all these bore traces of violent death, i. e. fractures, produced by sharp weapons. Human jawbones, also coloured red, the teeth being fastened in with wax or gum. One or more are attached to a string, and are probably worn round the neck. The natives use tobacco, and smoke pipes of the same shape as those of



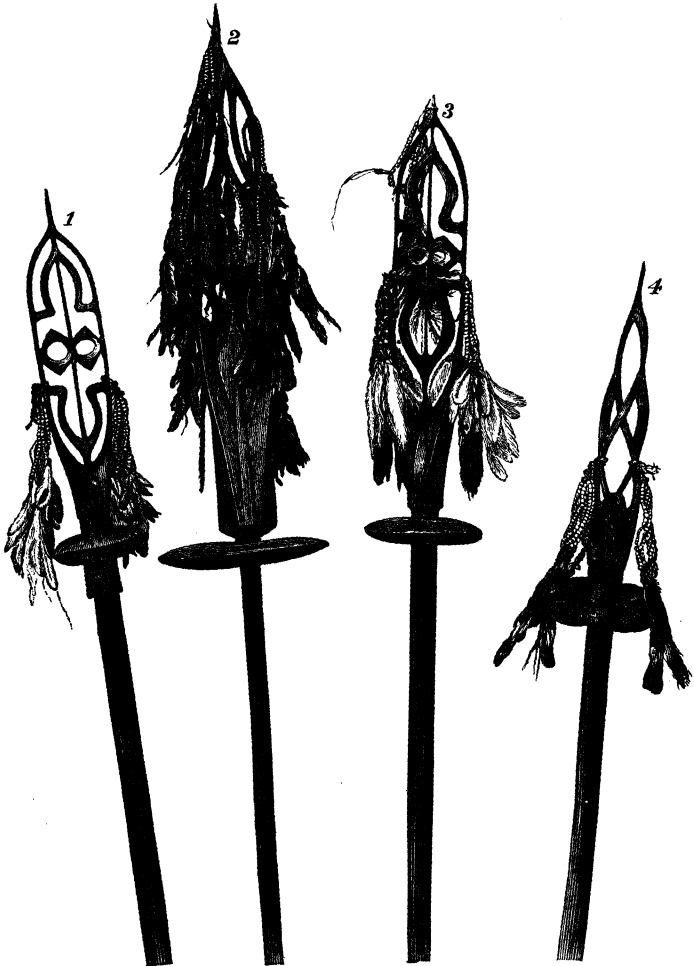
Embalmed Head.

the people of Kiwai and Moatta. They must grow tobacco in great quantities, for I found a large amount, dried, and prepared in such a way as to be easily carried about—from which it may be concluded that this tobacco is of excellent quality. They possess large marine shells, which they use sometimes as ornaments, and always in time

of war. They probably obtain these shells from the tribes dwelling nearer to the coast, exchanging them for tobacco, which the natives of the coast do not cultivate, so far as I know, although they make use of it.

Here also the women clothe themselves with garments of grass cloth. They seem more civilized than the other natives I have visited in these parts, for they manufacture a very convenient kind of cloak, with a hood, and, moreover, they adorn it with coloured fringe. They have small unornamented daggers of cassowary bone, wooden spatulas, and gourds for lime, mostly ornamented with shells, and some other curiosities. I saw none of the bamboo knives which are used at the mouth of the Fly and at Canoe Island to cut off heads, although the seventeen skulls I found to-day indicate almost to a certainty that these savages are head-hunters. Their canoes are long and extremely narrow, and the paddles are of a shape novel to me. They are ten or twelve feet long, light and round, and ending in a disc, often coloured with white, black, and red. They are elegant objects, and probably more ornamental than useful. These people seem to be masters of the art of manufacturing arrows; and there is great variety in the shape of the points, which for the most part are made of bone, and dyed of different colours. They are distinguished, besides, from all other arrows as yet seen by me in New Guinea by being fastened together by a kind of cement. These are often three in number. A piece of armour for war—probably worn also at festivals as a mark of

authority, and which Maino calls "baratu"—will give some idea of the capacity of these savages for carving and in working in very hard



Fly River Interior.

stone. A sketch of this will be of more value than any description.

These baratus are coloured in the same way



as the arrows and the oars; a delicate yellow tint is also used on them. I must note that these dyes are indelible, and are probably produced by chemical combinations. In no other part of New Guinea have I seen similar colours used, nor any varnish.

It seems worthy of remark, that in this village I did not see one single netted bag; but I noticed a great quantity of bags, old and new, empty and full, all made of plaited palm-leaves, or bark rendered pliable by soaking and beating. Not less interesting is the fact that there is not a single hammer of silica; but the natives use instead a curiously-shaped wooden hammer, inserted in a piece of bamboo.

Two large but very roughly-made drums show that all the inhabitants of this great island have a predilection for a kind of music which is torture to the ears of Europeans.

I cannot say whether they wear wigs, such as I saw in other places; it is a fact, however, that they use human hair in their manufactures, and that they obtain it from their warriors; but I am in doubt whether it is used for wigs or for clothing. Necklaces of dogs' teeth seem to be worn, but they are rare. When the men had collected sufficient fire-wood, we returned on board; not, however, without first killing some of the wild duck which frequent the lake.

As quickly as possible, we weighed anchor and resumed our return voyage. We had not made more than ten or twelve miles, when all at once nine canoes—some large, some small—appeared in the middle of the river. Five of the

larger ones carried ten or fifteen warriors, each armed, and handsomely adorned for combat, while the other four contained only two or three persons, apparently unarmed, and certainly without ornaments. Probably these latter canoes serve, or are intended to serve, as ambulances; and I recollect that in the order of battle kept by the natives of Attack Island and Canoe Island, besides the fighting canoes there were others, unarmed, and carrying only one or two persons.

I made the necessary preparations for our defence, if it should become needful, and I steered the "Neva" so as to bring her between the armed and the unarmed canoes. The natives, having the current against them, were naturally very disadvantageously placed; while we, going at full speed with the stream, were able to execute our manœuvre, leaving the unarmed crews up stream behind us, and the warriors down stream and in front of us.

Seeing how easily we executed this manœuvre, our adversaries began to fly, while those in the ambulance, whom I had made understand that we designed them no harm, remained still, and afterwards followed us at a distance of about 100 yards. But, meanwhile, the "Neva" was gaining on the distance that separated us from these courage-lacking warriors, and advanced like some monster propelled by a mysterious power. In truth she must have seemed a mystic and terrible monster to the natives, as she makes her way, leaving behind her a long trail of smoke. But that which probably terrified them most was the noise of the engine. When they heard

it, they seemed to lose what little reason, strength, and courage had remained to them, and, turning their canoes towards the shore, they forsook them, and then springing on to the bank, forced their way through the reeds.

They abandoned all that they had, including their arms. Among the objects thus left behind were several bags of sago, cocoa-nuts, and ornaments, one consisting of the dried skin of a bird of paradise fastened to a piece of wood, and probably worn on the breast. This skin is that of a bird I have always found to be most rare (*Xantholemus aureus*), and it seems to be of great value to the natives, judging from the care with which it had been prepared, and the manner in which it was preserved.

The way now being clear, we resumed our voyage. We met with two other canoes lower down the river; but the natives, though prepared for fighting, had not courage enough to wait for the "Neva," but disappeared up a little creek with shouts and gesticulations.

On the 14th and 15th we continued to descend the river, but nothing happened worthy of remark. On the 15th we saw several natives not far from Howling Place, and at first they seemed inclined to enter into relations with us. We somewhat lessened our speed, and turned a little towards them; but this seemed to rouse suspicion and alarm, for they fled precipitately.

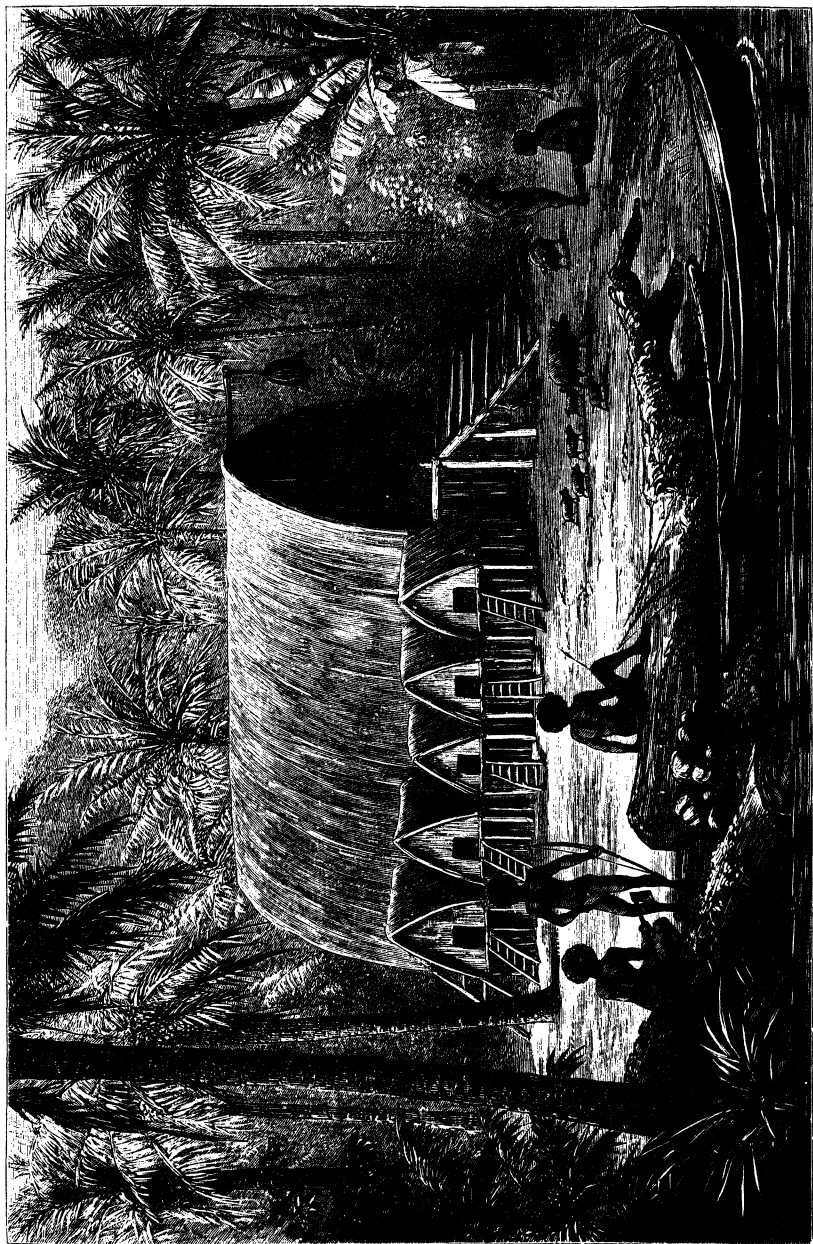
On the 16th, being Sunday, I gave my people a rest. We have seen smoke in many directions, but no natives.

*July 17th.*—We started this morning very

early, passed Canoe and Attack Islands, and at half-past three anchored before the village, almost opposite the western extremity of Kiwai Island. Here the natives are friendly with the people of Moatta, and we therefore landed with Maino, Waruki, and Dawan.

We were, however, received very coldly, although Maino and some of the natives were moved to tears on meeting. There were only men in the village; we did not see a woman or a child. As these villages had never been visited by a white man, I had a great wish to go into the houses, and to see as much as possible. After some exchanging of cocoa-nuts, yams, taro, and bananas, against tobacco, knives, &c., &c., I began to wander through the village, while some of my people continued the business of barter, and others were on guard on the boat. Seven houses face the river, and almost hide from it a very long house, which can be perceived from our anchorage. It might be said that these five are appendices to the other one, since they are joined together by small bridges, by means of which it is easy to pass from one to the other. I first entered one of these seven. Two natives tried to prevent my entrance; but I pretended not to understand them, and explaining that I wanted to go and see Maino, I passed in.

Through the pervading darkness and smoke I could discern little or nothing; but the house seemed to be divided into five small lateral compartments. I could perceive that it was very dirty. I crossed the little bridge, and was soon at the big house, where two other natives



PARA'S VILLAGE, KIWAI.



tried again to hinder me. Repeating several times the name of Maino, I pushed by them and entered. I found myself in the middle of a long and spacious nave, in which there reigned a semi-obscurity. A very faint light shone through two wide doors at the two ends of the large building; but these doors are so far apart that the light from either end does not reach the middle.

Another singular effect of light is produced by numerous small side-doors, through which white streaks are reflected on the two sides, at intervals, all along the length of the house.

The sepulchral silence was broken only by the remonstrances of the two natives who had followed me, and were urgent that I should go away. But I would not listen to them; I was fascinated by what I saw. In the white light from the two larger doors the fantastic figures of some natives could be distinguished. Here and there I saw persons, perhaps shadows, flying in different directions—silently, rapidly, ghostlike. In truth this fantastic—nay, mysterious—house held me motionless, that I might observe it. The importunate voices of the two who had followed me, and who insisted on my leaving, seemed to me like profanation of a holy place. The nave, in the middle of which I found myself, is certainly not less than a hundred yards in length, and twelve or fifteen in width. The roof and the walls are formed by two arcades, which meet at a very sharp angle, at a height of forty feet or more from the ground. In the centre there is no support, but the two arcades

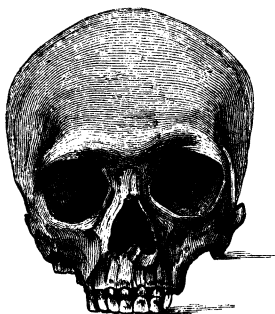
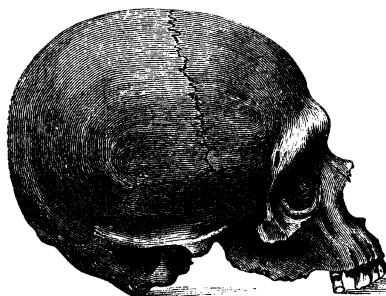
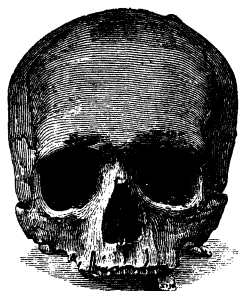
are sustained by two long rows of pillars, about two yards and a half apart. These pillars, which are merely straight tree-trunks, mark off as many compartments, in some of which I saw fireplaces; the greater number, however, were empty. The floor is quite even, and made of nipa leaves; it is consequently smooth, polished, elastic, and, I should say, pleasant to the tread when passing over it barefoot.

Followed, and I might say pushed, by the two natives, who had placed themselves one on each side of me, I made for the great door on my left hand. Notwithstanding their endeavours to make me go out by each side-door near which we passed, I at last reached the end of the nave, and turning round, I could not but stop to contemplate again, and to appreciate more thoroughly a spectacle so new to me in this country. The house was artistic, yet savage; poor, and yet grand; simple, but beautiful—in its spaciousness, its regularity, its harmoniousness, and its cleanliness.

A Gothic nave might give a better idea of it than my description. I was hardly through the door when I found myself in a sort of vestibule, in which I saw two natives seated near the fireplace. On seeing me they rose up, and seemed not a little astonished at my presence; one of them immediately went away, while the other, who was perhaps ill, remained staring stupidly at me. This vestibule was about fifteen feet wide. On the one side was the fireplace; on the other—hanging in an angle, like a cluster of grapes—was a quantity of human skulls. I asked if they would sell me a few of them, but they refused.







SKULLS OF NATIVES OF KIWAI.

Luckily Dawan now appeared, and, supported by him, I induced the natives to enter into a bargain, and in exchange for a woollen blanket, some knives, hatchets, mirrors, and glass beads, they gave me three of the skulls. It seemed to me just that I might take the other nine. The natives did not appear very well pleased; however, they let me do this, and what else I would.

Some fine kinds of croton are cultivated by the natives; I obtained a little in exchange for tobacco. I remarked some cases of skin disease, some of elephantiasis of the legs, and more frequently that disease of the scrotum, to which I have previously alluded.

I saw a handsome tame hornbill on the roof of the house, and it was promised to me in exchange for some hatchets, a strong knife, and a blanket.

*July 18th.*—This morning I did not land, but I sent one of my men to pay for the hornbill, and to bring it on board. When the men returned they said the natives had told them the bird had flown away. I despatched Maino to plead on my behalf, but he came back empty-handed. I was provoked by the refusal of what had been offered and promised to me, so I fired three rockets in the direction of the village. This so terrified the natives that one of them immediately appeared on the bank, with the hornbill on his hand, begging I would send and fetch it. Maino returned on shore, paid the price agreed on, and brought the bird on board.

While we were preparing to start, several canoes came round us for the purpose of barter,

and among other things I obtained some skins of the *Paradisea Raggiana*, which the natives use as ornaments. They were, however, much torn.

We steamed towards Mibu Island, and anchored in the afternoon on its eastern side, in hopes of being able to continue our voyage as far as Moatta to-morrow.

Our hopes were vain. The south-east monsoon is blowing strongly, and the sea so rough that we cannot venture on it in the "Neva." She is not only very dangerous, but really unseaworthy. After a dreadful night of rolling, and of continual fear lest the "Neva" might be damaged by the staving-in of the boat, against which the waves were breaking furiously, I thought that, piloted by Maino, we would seek a place of anchorage, there to wait for calm and favourable weather for such a vessel as ours.

Maino, well accustomed to these parts, brought us to a creek which divides Mibu Island, as marked on the map. In reality, there are two islands, not one.

We found a secure anchorage, with some wind, but little current. It might be considered a harbour of rectangular shape, about three quarters of a mile in length, and a quarter in width, with seven fathoms of water.

The surrounding land is low and marshy. A beautiful nipa grows abundantly on the banks. I saw only a few mangrove-trees. On the following day we tried again to proceed on our voyage, but vainly. Maino suggested passing to the west of Mibu in order to reach Parama; but we

tried in vain, and had to resign ourselves, and to wait for calmer weather.

Maino pointed out to us a small creek west of Mibu, in which we might anchor. I chose this one in preference to the other, of which I have already spoken, because there are numbers of cocoa-trees, apparently without owners, and it would seem that any one who chose might gather the nuts.

Mibu became a real prison. Brackish water, want of meat, quarrelling, ill-humour, and nothing to do prevailed. Sometimes the natives would come to sell bananas and yams to us, and that would make high festival. No birds, or only a few common ones were on the island, no fish in the creek. Surrounded on all sides by nipa, the marshy lands, the pestiferous exhalations at low tide, could not but influence our health. Although our sanitary state had much improved by the use of pork, the fever returned, either from the locality, or from the brackish water, or from flesh meat failing us again, and every day there were two, three, or more, on the sick list.

I will not relate all the miseries we had to endure; but I cannot pass over or keep silent as to what happened on the night of the 21st, since it demonstrates that when we think we are safe, we may, on the contrary, be in the greatest danger.

On the evening of the 21st I retired to rest in good spirits, thinking that as we had not been rolling, it would be possible to sleep quietly. But it was not to be! Towards the

middle of the night the man on watch awoke us, making us observe that the "Neva" was in a dangerous position. The tide had been so high that the "Neva's" poop was on the bank, and had remained fixed there when the tide went down, while the prow was floating almost in the middle of the creek. We began to manoeuvre, so as to get out of the dangerous and inconvenient position in which we found ourselves. But, either from manoeuvring in the dark, or from a badly executed movement, the "Neva" was scarcely afloat again when she was caught by the current, and in less time than I take to tell it, we found ourselves on the opposite bank. The branches of a solitary tree which hung over the creek, became, as ill-luck would have it, entangled in the roof of the canvas tent of the "Neva." All our endeavours to extricate ourselves from this second misfortune were unsuccessful. Meanwhile, the tide ran out lower and lower, and every minute left the "Neva" more high and dry, heeling over on her left side on a steep and shifting bank. We tried to make her safe with supports, but they would not hold in the mud, and the "Neva" continued to slip and to shoal.

It was evident that if we could not succeed in arresting this movement she would end by being precipitated to the bottom of the creek when the tide reached its lowest ebb. However, luck did for us what no effort of our own could accomplish. An old root of nipa stopped the "Neva:" nothing else could have stopped her—nothing else could have saved her from the impending danger. It was scarcely daylight when I sent

on shore the collections I had made during the voyage, and everything else that might be damaged by water.

This was an arduous task for the men, who sank to their knees in the mud. About seven the tide began to rise, and here was another critical moment. The "Neva" was so imbedded in the mud, that, notwithstanding the rising of the water, she continued stuck fast, and the water began to make way into her. The men worked at the pumps, and at last she righted, and was afloat again!

At half-past nine all danger was over, and we were able to eat our meal quietly, and even gaily, for, barring the fright, we had escaped scot free.

I think I have already mentioned that my dog Dash, a setter, had, for travelling companion, a poor sheep. Unfortunate animal! It had suffered much from hunger during nearly all the voyage, and had arrived yesterday at such a pitch that we thought it would die of itself, so it was killed. We were hoping it would have lasted until we reached Moatta, where we could have procured a fine pig from Maino, but we had to make up our mind to kill it, lest it should die, in which case, naturally, no one would have eaten of it. It was reduced literally to skin and bone. Our cook was preparing it this morning, and exclaiming, "Mutton cutlets and Irish stew!"

It seems curious that a sheep should die of hunger, and that this should happen, although I had taken it under my protection. In the forest there is no grass, and I was obliged to gather

many plants to find one that it would eat, and often there was not one. When unusually pressed by hunger it would sometimes eat some kinds of ferns. The fact is, however, that it was starving. In all this archipelago of islands at the mouth of the Fly, there is no fresh water; in the dry season, therefore, when the water in the river is greatly diminished, the more southerly islands are literally without water for drinking, and the natives make use of milk from the cocoa-nut—so I am informed by Maino.



## CHAPTER VI.

My men capture a pig—Their joy, and the owner's grief—Maino, his origin, history, and characteristics—Jackson, Palmer, Waruki, and Maino compared and contrasted—Waruki and Dawan on his own merits—We escape from Mibu at last—Bampton Island—Yarru—Its Australian aspect—At anchor in the River Kataw—Within sight of Moatta—Maino's landing—A pig difficulty again.

*July 25th.*—Dawan asked leave to go to Tzamari on Kiwai Island, with some of my men, in hopes of obtaining a pig from his friends by purchase.

I naturally consented, and sent four men with Dawan. They took with them articles for barter, which they said were necessary in order to buy the pig. They returned towards evening with a large pig, and a good store of bananas and yams. I learnt, however, that the natives had not shown themselves very anxious to please Dawan, that they preferred not to part with the pig, and that to get rid of his importunities they abandoned the village. Dawan, however, who is very fond of pork, especially when it is not his own, and can eat it without caring to know whether it is the property of a friend or an enemy, ransacked the village, and found under a house a

fine fat pig, sleeping unconscious of his fate. Dawan ordered Bob to kill the poor brute. Bob, urged by similar feelings, did not hesitate a moment. No sooner said than done;—the price of the dead pig was paid to two poor blacks who had remained in the village, and it was brought on board. My men are delighted; they are singing and laughing, and relating a thousand episodes of the day.

*July 26th.*—To-day, while the men were ashore cooking the pig's meat, they came across its owner. Poor fellow, he wept at the sight of his pig! Dawan, however, told him that it had been paid for, and named the objects he had left with the two custodians of the village. This seemed to assuage his grief. A little later two sailing-boats left Mibu in the direction of Kiwai. The owner of the porker was going to claim what had been left for him: he said, however, that he did not expect to obtain the whole. He seemed to think that his companions would expect to profit by his misfortune, and to share the price of the pig with him.

The days of leisure to which adverse fortune condemns me, enable me to revise my notes on our pilot Maino, his son Waruki, and Dawan. I flatter myself that my readers may be interested by the sketch, physical and moral, of my three pilots. Maino, chief of one half of the village of Moatta, situated at the mouth of a small river of Kataw, was born and educated in the village of Kiwai, the capital, probably, of the island bearing the same name.

The vicissitudes of life made him forsake the

country of his birth, and he fixed himself at Moatta, where he is now a ruler.

He is a man who has climbed the hill of life, and is now a good way on in its descent. This may, perhaps, give a better idea of his age than if I were arbitrarily to assign to him a certain number of years. He is no longer handsome, although he may have been so, but there is nothing disagreeable in his appearance. He has a stoop, holds his head bent forward, his chin often resting on his chest. His body is thin, especially the legs, which are covered with little besides skin, the knee-bones consequently stand out in an unusual manner. His forehead is high from the top of the nose to the beginning of the scalp. His head is of moderate size.

The arches above the orbits are rather high, while the parietal bones are much depressed. This parietal depression, and the external arch of the orbits, is very striking to the observer. His face is rather long, somewhat prominent, but not enough to make it prognathous; the nose is a little hooked, but it cannot be called aquiline; the lips moderately thick, the lower lip large in comparison with the upper. The chin does not seem prominent; but the beard of half an inch long—black, thick, crisp, and shining, which covers it—prevents a close examination. The nostrils are pierced, but I never saw him wear any nose ornament. The ears are deformed from the custom of lengthening the lobes, and wearing ornaments in them until the death of a wife or a son. On such an event happening, not only are the ornaments dispensed with, but even a portion of the lobe of the ear is cut

off. Maino's ears are therefore far from beautiful. His shoulders are narrow, and being curved and drawn forward, they look narrower than they really are. His height is sixty-five English inches, viz., five feet five. His eyes are small and hollow; the irides brown, lightly veiled by a bluish tint; the eyeball is of a yellowish white, very much bloodshot. His hair is woolly, and curling, forming separate ringlets when sufficiently long; it is evenly distributed on his head, while on Jackson and Palmer's heads there are bald places. Maino's hair does not form into ringlets until it is of a certain length; Jackson's divides into curls when scarcely the tenth of an inch long. Now, as Palmer and Jackson represent the pure negro type, I can affirm that there exists a perceptible difference in the hair, and in its manner of growth on the scalp; there is also a difference in it to the touch; and these differences would always enable me to distinguish the two races to which these three individuals belong, notwithstanding their analogy in some other respects.

Were Maino to be placed by the side of a native of the Sandwich Isles, and of another from the group of New Caledonia, it would be seen that his hair is more woolly and more thickly curling, and, lastly, of a darker colour. It should be noted here, however, that Maino uses neither comb, nor brush, nor oil, but a kind of wax in their stead, on which account the differences I have pointed out may have little real importance. The colour of his skin is a dark chocolate. By the side of an individual from the Sandwich Isles, it would be seen that the colouring of the

latter is more of a rusty red; while, compared with a native of New Caledonia, Maino would be a little the darker of the two. Beside Palmer and Jackson, West Indian negroes, scarcely any appreciable difference can be perceived in the colour of his skin; but, owing to their oiliness and shiningness, the two negroes at first sight seem darker.

Put one beside the other, the arms of Jackson, of Waruki, of Dawan, of the native of Sandwich Islands, and of the native of New Caledonia, would be hardly distinguishable by their colour, but



Maino, Chief of Moatta.

they would be distinguishable by the texture of the skin.

The above is a sketch of the animal Maino. I will now try to draw his portrait as a man, according to the moral sense of that definition.

The opinion I have formed of him as a reasoning being is favourable. It is not, however, necessary to examine him very closely with European lenses, nor to abstain from comparisons, while remembering that he is what we call—a Savage. To me he is only a man uncivilized, and

incapable of civilization according to our notions of it; but he is not that which is understood by many when they use the word Savage. He has sufficient intelligence for his position, and probably he is not capable of more.

He appreciates some of the benefits of our civilization, prefers a steel knife to one of bamboo, and recognizes the superiority of an American hatchet over a stone one.

He can understand that a shirt will protect him against the weather better than his skin; but farther than that I do not believe he would change his mode of living for ours. He is friendly to the white man because he fears him, and because he knows he can gain by him. He is proud, and takes offence easily, without, however, showing that he is irritated; only once during two months and a half did he display any anger. He is generally silent, and seems meditative. Sometimes he is lively and will laugh, but his laugh appears studied and forced, not natural nor spontaneous. He is cruel rather by instinct than from education, and in a way that we Europeans can perhaps neither understand nor appreciate justly.

His cruelty raises him in his own estimation and in that of his dependents—in the eyes of his friends and of his enemies. The ferocity of Maino may be compared, in my opinion, to the courage of a soldier. He is proud of his cruelty and of his prowess exactly as a soldier is. He loves to relate his battles, or those of his friends, and he exults in the recollection.

He considers men and women, if they are

strangers to him, good for nothing but to have their heads cut off. Up to the present time his victims number thirty-three. He becomes animated and excited at the idea of fighting. He would not disdain an unfair advantage over an adversary, nor object to have recourse to treachery if the opportunity offered.

A warrior who bravely attacked him, or a woman sleeping in the forest, whom he could surprise and kill, would be to him exactly the same. He would see in each a trophy, a victory; and what he would esteem would be their skulls. He likes to see blood—a corpse with the head cut off. And it is with marked satisfaction that he describes the *modus operandi* in cutting off a head, the instruments used in the operation, and the method of surprising an enemy by treachery, even if a woman or a child.

He must have studied the anatomy of the human body on his victims, and he knows the names of the various organs, and their functions. Of his anatomical knowledge he is very proud.

He is tender and affectionate towards his own family; and to his sons at least, and in time of peace, his temper may be said to be mild. Egotism is proper to all animals; it would be useless to inquire here whether man, as an animal, is more or less selfish than the other, and inferior animals; it is certain, however, that all men are selfish, more or less. Maino is remarkably selfish.

He would willingly let others die of hunger, if to relieve them he would have to sacrifice some delicacy intended for himself. I experienced this

during the voyage. When an opportunity of taking some sago offered, he would always contrive to get for himself the largest share. Afterwards, when we found we had exhausted all ours, and there was nothing else on board to eat, and it became necessary to lay hands on his (or at least on what he considered his), Maino would be in a bad temper all day—sulky, and almost crying; yet he is not hard-hearted, and is moved to tears on meeting with a long-absent friend.

He is ready to oblige, if it does not cost him much, or if he hopes for reward; and is always willing to make himself pleasant. His manners are good, and he knows how to behave discreetly even among white men.

He has a great many sons, and always finds himself embarrassed when he is asked how many. He has had many wives, and still has several. It was impossible for me to discover whether he loves them as the brutes love their females, or as a man loves, or ought to love, his wife.

Notwithstanding certain traits which might make him appear a bad man in the eyes of Europeans, I can testify that Maino is a good fellow, and was a good comrade to us all. His rank, and his age, prevented his being useful, except as a pilot; but in that capacity he was most valuable.

Waruki, one of Maino's numerous sons, is a youth just reaching adolescence. He is of low stature, only five feet three inches, and is of moderately dark complexion.

The extreme length of his head is  $6\frac{7}{8}$  inches,



and the breadth  $5\frac{7}{8}$  inches. From these figures he would seem to be brachiocephalous, while his father is dolicocephalous. The difference may be derived from the mother. His forehead is not retreating, like his father's, although it is high. His nose is rather flat, especially towards the end. His mouth is very large; the lips are thick, though not very prominent. The eyes, of moderate size, are dark brown, with eyeballs of yellowish white; the teeth are strong, and of dazzling whiteness—the chin narrow. His jaw tends to the prognathous. His limbs, without being weak, are slight. The colour of his skin is a shade lighter than that of his father. His hair is crisp, curling, and of a deep black, not shining, growing evenly over his head, and not dividing into curls where it is short; but the long hair is divided, partly by nature, partly by art, into curls, which terminate in ringlets, according to the custom in many of the islands in Torres Straits.

Having been accustomed to see Europeans from his infancy, he is at his ease with them, and he is sufficiently intelligent to understand, and to recollect what he hears. He is docile, obedient, and respectful to his father. Lazy, like the rest of his people, he works as little, and sleeps as much, as possible. He is attached to his father, and seems to serve him more through love than fear, but sometimes, out of laziness, he pretends not to hear his commands. Vain of his person, he likes to adorn himself with necklaces, flowers, and other things, and spends a good deal of time in arranging his hair. His

manners are gentle and affable, and his temper is mild. Were he educated he would soon forget savage life, and enjoy the benefits of civilization.

Dawan is an adult, of robust frame, and vigorous temperament. His shoulders and chest are wide; his whole aspect denotes strength. His forehead is retreating, his skull pointed. His head measures  $7\frac{1}{2}$  by  $6\frac{1}{2}$  inches. His height is 5 feet 7 inches; he has a high forehead, brown eyes, yellowish bloodshot eyeballs; the eyes somewhat small and sunken; nose aquiline, though flattened at the end. He is rather prognathous, with very prominent cheek-bones; and a narrow and pointed chin. He is touchy and irritable, very lazy; when he does set to work, however, it is with strength and spirit. He is taciturn, but at times he becomes very loquacious and noisy.

He has the blood and the feelings of his race—if you scratch him, you find the real savage at once. He exults at the thought of blood; but though brave, he prefers treason or surprise to an open fight. He is avaricious, and grasps at everything for himself; he would refuse a handful of sago to a person dying of hunger. He is greedy of gain, and he would betray friends, and help strangers against them, for the hope of a share in the spoils.

*July 28th.*—*Ennui* and idleness make us all ill-tempered; and to live on board a little vessel like the “Neva,” in a place such as we are in, and in such circumstances, is worse than being in prison. Towards evening I observed Dawan get his things ready, then jump into the boat and begin to unfasten it, so as to go ashore.

I stopped him in time, however, by main strength rather than by argument, and obliged him to return on board. He came back quite crestfallen, and when he was quiet again I questioned him on the subject. Having heard his explanation, I sent him to his post. The following is the cause of the quarrel. He made to-day an "adiga," an article which serves to suspend to the arm the heads of persons either killed in battle or by treachery. It seems my people suspect that our pilots, in league with the natives, are plotting to murder us in the night-time, and the instrument manufactured by Dawan they imagined to be a preparation for the crime. They began, therefore, to molest him, so as to force him to go away of himself, or to induce me to send him away. For my own part, I do not believe that Maino and his followers had such evil intentions; but I think it not improbable that during the night they might seize the boat, and leave us to ourselves.

Trusting to the proverb "It is an ill wind that blows nobody good," I did not attempt to combat my men's suspicious fears; but I exhorted them to extreme vigilance during the night watches.

Last night, after an attack of fever, I fell into such a state of prostration that my pulse beat only thirty-five to the minute. I fell asleep, or perhaps into a lethargy, afterwards, which lasted until morning. Nevertheless, I am able to-night to write my usual quantity, and by moral, rather than physical force, to keep Dawan to his duty.

*August 3rd.*—At last we have taken leave of Mibu, our wearisome prison. My life may be long,

but never can I forget this ill-omened island! What can efface from my memory the first night we anchored here, at the mouth of the Fly, when, on the tide running out, we remained for hours aground? I still seem to feel the "Neva" striking on the bottom, as if she would go to pieces every moment! What can blot out from my mind those fourteen days which I passed in a narrow creek, between two walls of mangrove and nipa, threatened with death from hunger and thirst, amid the continual grumbling and quarrelling of my men? And lastly, can I ever forget the anxiety I experienced every time we tried to start, on account of the peril to which my collection was exposed of loss or damage by the water?

But, thank Heaven! we are now anchored at Bampton Island (Parama). Although we are in a creek, we may rejoice in a wide horizon, and in the sight of a beautiful forest.

I hear the notes of the *megapodius*, and a thousand other birds; I see the eagle-fisher fall like a bolt on the poor little fish who swim too near the surface. We are at Bampton, and at last we may sleep in peace, for the "Neva" will not drag her anchors, nor in the middle of the night find herself stuck on a bank of mud. Under Maino's guidance we took a new route, passing to the west instead of to the east of Mibu. We came close by Daudai—i.e. New Guinea—and anchored between it and Parama. Although we have sometimes had only a fathom of water, we still think we have discovered a shorter and more direct route to the Fly. Maino tells us that by

passing north of Bristow Island (Bobo) and Yarru we can reach Kataw.

We arrived here while it was yet early, and I sent the men, with Dawan and Waruki, to a village of New Guinea, which Maino calls Gheani, to try to procure pork, bananas, and yams. They only obtained, however, a few bananas and yams. Dawan, who had remained ashore at Mibu with some friends, rejoined us this evening in a canoe, which went on afterwards by way of Kataw, whence to send the news of the arrival of Maino and his son to Moatta.

They say that Maino is mourned as dead at Moatta, and that all hope of seeing him again has been given up.

At dusk we saw a great number of very small *Pteropus*, who seem to have made their dwelling in this island.

*August 4th.*—Taking advantage of the calm morning, we pushed on to Yarru. The hope of getting as far as Kataw, which is not more than ten miles distant, was frustrated by the rising of the wind. The latter part of to-day's short voyage was anything but pleasant, but we are in an earthly paradise, if we compare this little island with Mibu. Here, although the island is uninhabited, there is abundant fresh water. Pigeons, *megapodius*, and ducks are exceedingly common. Fish also are plentiful, and to-day I made great slaughter of them with dynamite. As we have fine fishing and hunting grounds here, I do not intend to risk the "Neva" at sea in rough weather.

*August 5th.*—The weather being unfavourable,

we are still at Yarru. Further slaughter with dynamite of beautiful and excellent fish—enough for all of us, and for my collection also !

Having gone ashore, my men made great havoc among the pigeons, killing about twenty *Carpophaga Mullerii*. I saw two *Mycteria Australis*, but was not able to kill them ; I have, however, ascertained the presence of this bird in New Guinea. This little island, only three or four miles from New Guinea, has, from its vegetation, an Australian rather than a Papuan aspect. Though it is ninety miles from Cape York, it has more affinity with that place than with New Guinea. It seems like a piece of Australia transplanted hither.

It might be supposed that the eucalyptus-trees recall Australia, and it is to be stated that on the opposite coast we did not see a single tree of this description. This island is separated from Warrior Reef by a narrow creek, not more than six or seven feet deep at low tide, and it may be assumed that it is a continuation of Warrior Reef, although its north part, which I visited, is not calcareous. Above high-water mark there is a stratum of whitish chalk, while those parts which are dry at low water only are covered with a stratum of arenaria, containing a great deal of oxide of iron.

*August 7th.*—Having at last, in spite of all dangers, secured a shorter route from Moatta to the Fly—at least for a vessel like the “Neva”—we are at anchor here in the little river Kataw, in sight of the houses of Moatta, which are 800 or 1000 yards from us. No fear here of death by starvation ! no occasion here to dread the natives !

Though the weather should remain unfavourable, it would not prevent the arrival of some of the boats employed in the mother-of-pearl fisheries in Torres Straits, from which we could obtain supplies.

All on board are in good spirits. The three happiest of all are, however, Maino, his son, and Dawan, since they were returning to their own country and to their families, and because for them the voyage is really at an end—the longest voyage they have ever made. And now that it is over, and that they are almost at home again, they are glad to have made it, and boast of it with pride.

Their joy, however, was a little damped by a request I made of Maino before he landed. Knowing that he is very rich, I said to him, “Maino, we ought to make merry to-day in honour of our safe return to Moatta without having been drowned, or killed by fever, or eaten up by the bushmen of the Fly. For making a feast on board, under present circumstances, nothing is wanting but a fine porker; you, who have so many, should sell me one.”

Poor Maino! At these words his blood ran cold, and he pretended not to understand me; while I reiterated my request, showing him what I would give for the pig. As he and the other two had received a larger remuneration than they had expected for their services as pilots, he felt he could not take more, and would have preferred not selling the pig.

Meanwhile a number of natives had gathered on the shore to congratulate Maino on his return, and he asked my leave to land; to which I replied

that he should not go until he sold me, or obtained for me, the pig. He promised then to go and find one, and to send it me; but not relying on his word, I made him understand that I should keep him on board as a hostage until it arrived. This seemed to vex him very much, and he decided on sending to the village in search of one of his wives.

She soon made her appearance. An ugly hag—thus would I describe Maino's favourite. Shortly after a second wife arrived, more ugly, more hag-like than the first. Maino explained the business to them as they stood there, and a lively conversation ensued between him and the women, of which, happily, I did not understand one word—for who knows what I might have heard to my disadvantage? However, it seemed that the wives would not give up the porker, and that they advised Maino to throw himself overboard, and swim to shore. They evinced no pleasure at his return.

Although I pretended to be angry, I could not help feeling amused, nor refrain from laughing at, and pitying, poor Maino, who knew not whether to accede to my demands, or yield to the importunities of his wives.

At last he lost patience, and said something to the women, which caused them to depart.

A little later some natives made their appearance, bringing a small pig, but in good enough condition. I then allowed Maino to disembark, with his baggage, which consisted of all that he had received from me in return for his services, including some arrows, pipes, and other curious memorials of our expedition as the price of the pig.



We disembarked with him, that we might take possession of the pig, and shake hands with all our friends at Moatta.

Before parting with us, Maino wrung our hands, and with tears in his eyes promised that we should be supplied with bananas, taro, and cocoa-nuts, all the time of our stay at Kataw. Why did Maino weep? From sorrow at leaving us, after we had passed through so many dangers together, or from joy at rejoining his own people? This is a difficult question to answer. The pig, innocent victim, served as a scape-goat. Armed with fire and with blade, they prepared to kill it; but it did not think proper to die. I have rarely seen greater tenacity of life than in Maino's pig.

We made a good fire on the bank, and we roasted the poor beast, while we talked and laughed with the natives of Moatta: so ended our evening ashore. On seeing and hearing them, it must be admitted that civilization is beginning to reach them at last. They make use of, and understand, many English words, and they know how to sell their goods at a high price; although one will make his appearance in a felt hat and a leathern belt, without any other garment, and another wear a shirt which does not cover his thighs, or he will think it sufficient to carry it on his arm, and walk about as naked as his fellows who do not yet possess such articles of luxury.

Civilization comes more slowly to the women, who seem to be more conservative than the men: their whole dress still consists of a small handful of grass in front, and a yet smaller handful behind.

The men are beginning to be civilized, and you may see a long knife and an iron hatchet carried in a bundle of arrows with the bow, or a native stalking proudly along with an old rusty edgeless sword. On the arrival of a stranger they will shake hands with him. Civilization is among them, and will soon produce its effects; what those will be, I will not now predict. The people are timid, and in their dealings with the white man they always maintain a reserve, which gives an impression of want of frankness, but is perhaps caused rather by fear than anything else.

The women do not, as in other places, fly at the sight of a white man; but they never approach one, and without actually flying, they draw back, or hide themselves on his appearance—the younger ones especially. They are grasping, and will give nothing without payment, on which they insist beforehand, for they do not believe in promises.

In justice, however, I must add that Maino absolutely refused compensation to-day for some taro and cocoa-nuts which he brought me. But we must remember that the exception proves the rule, and Maino is keen enough to know that by refusing payment to-day he will receive double to-morrow.

Numbers of natives afterwards came on board, asking for advances of tobacco. Among them was Anda, the chief of the village of Turetura, to whom I made a small advance, precisely to prevent his coming on board again, for he is a native to whom I feel a greater antipathy than to any I have yet met in these regions.

*August 8th.*—This morning Maino paid us

a formal visit. He was accompanied by some members of his family, who brought us a small present of taro and a few cocoa-nuts. The generous savage would accept nothing in return. Some of his followers, however, offered bananas for sale at double the usual price. Those who deny intelligence to these people must admit that they are very cunning.

I requested Maino to insist that his people should bring us at least enough bananas, yams, and taro to last us four days, so that on the first fine day we might steam off, and, if we were obliged to anchor near some island on account of bad weather, there would be no danger of our starving, or even suffering from hunger. He promised more than I asked; but, as tobacco is now plentiful at Moatta, I trust but little to Maino's word. The fact is, that since he returned to the village no one has brought us anything of any sort. Nor were the promised provisions brought on the following day, although some of the natives came on board and remained with us a good while. I told Waruki, therefore, that unless what Maino had promised was brought before evening I would send rockets into the village. And, in fact, as words were useless, when night came on I let off half-a-dozen rockets, and lighted some Bengal fire of different colours, which illuminated the dark shores of Kataw fantastically. Although the rockets did not reach to half the distance which separated us from the village, they produced a good effect.

## CHAPTER VII.

Off Moatta—Visitors to the “Neva”—Auta—Dawan—An experiment with a gun—Natives and dogs—Kataw—“Bushmen”—Ethnological remarks—Belts—New comers—A visit from Waima—Hostile demonstrations—Pig, again—Human skulls—Still at Kataw—A godsend—Captain Redlich plays the part of a good fairy—Grand doings at Moatta—Handsome Natives—A belief confirmed.

NEXT day the sun had not risen when the dark figures of ten or twelve natives loomed upon the bank opposite the “Neva.” They brought nuts and bananas, and asked for the boat that they might come on board and bargain. They were not kept waiting, and the exchange began, tobacco being always the favourite coin. They were so well disposed that on this occasion I bought some ornaments which they would never before consent to sell.

Afterwards Auta came, and forgetting that I had already paid him in advance, asked, in exchange for as many articles as would amount to a sum of at least five or six shillings for two bunches of bananas. This amount I refused to pay. After remaining two hours on board, he at last decided on giving up his goods for a handkerchief and a little tobacco.

If you add to the hat that Auta wears, his

trousers, his leathern belt, and his turn for trade, you may say that he is at least three-quarters civilized already. The natives were so well disposed, that they undertook to bring me insects and reptiles.

Dawan told me the women and children were so terrified at our fireworks that they had fled into the forest, followed by all the pigs of the village. I assured Dawan that no one need fear us ; but that when they would not sell to us what we were in need of, I should naturally be obliged to use rockets. While on shore four or five natives approached near me, one of whom was very sympathetic and intelligent. Well made, though only of middle height, he had very expressive features, denoting intelligence. I doubt whether this native belongs to the people of Moatta. He has a type of his own, which is not met with among his companions. He wears a sailor's blue shirt, which fits him perfectly, covering a little less than half his body, the lower half being still in the savage state of absolute nudity. Here we have again another case of half-civilized man. He shows great interest in my gun and revolver ; wants to see them taken to pieces, and tries to put together the principal parts, which he succeeds in doing.

He explains to the others the manner in which the various parts of these weapons work, and shows by his explanation that he has himself understood it.

At last he asked my leave to discharge the gun. I consented, and helped him to put it to his shoulder and adjust the sight, supporting it with

one hand. He boldly pulled the trigger, and, having missed the mark, wanted, notwithstanding a smart blow on the shoulder, to try again, although the first attempt had really hurt him. His companions had retreated far behind on merely seeing him handle the gun. I feel sure that if he had a gun of his own, in a week he would know how to use it as well as a white man. May the day be far distant, when the first gun shall be given to these people. With the fascination which bloodshed has for them, it is easy to foresee what they would be capable of if provided with fire-arms, unless, at the same time, their thirst for human blood were assuaged by civilization. Their progress in handling fire-arms might be more rapid than in civilization !

The few women to be seen are old and ugly ; indeed the ugliest women I have yet seen in New Guinea. In general they are comparatively taller than the men. The young women do not appear, they are probably not permitted to show themselves to our profane eyes.

Early in the morning several women are to be seen passing along the strand on their way to work in the fields. Each woman is accompanied by her husband, who walks at her side, armed with bow and arrows. The women are laden with provisions for the day. They often have a child astride their shoulders, and are followed by two or three others, who run after them like lambs after a sheep.

To complete the sketch two or three dogs must be added—ugly, hungry little dogs—and the picture would be perfect only for the absence of the

pigs, who have been sent away far into the country lest we should feel tempted to ask for some.

I killed a hawk, and the natives asked me for its claws, to make into fish-hooks, although our hooks are common in the village. The natives made their appearance to-day all daubed with black, but I could not learn their reason.

*August 16th.*—For a few days past the wind has been blowing hard, keeping us prisoners here, and it seems likely to continue some time longer. Our pastimes are fishing, hunting (in order to get meat), and impatient waiting for the natives to bring us bananas, taro, and yams. Of the natives we see but few, and these are principally children, and almost always the same.

Though Kataw at first seemed an Eden in comparison with Mibu, it now seems like a prison. For my part I cannot complain, for I go hunting after insects and animals; but my people would like to return to less wild places, and I have to listen to their lamentations and to endure their ill-humour. To-day, however, the monotony of the situation has been a little varied. Fate willed it that twelve or fifteen natives, belonging to a village situated some miles up the country, should pass this way. As such—that is, as people from the interior—they were recognized by the Moatta men. Maino, indeed, making use of his English vocabulary, called them, Manbush, or Bushmen. By this Maino meant to say that not only were they a people dwelling in the forests of the interior, but that they were a different tribe from the inhabitants of the coast.

The distinction thus made by Maino, calling men from the interior, Bushmen, may be of use in the study of these people and of the inhabitants of New Guinea in general, and deserves notice. He tells me that they come from time to time to the coast to exchange the produce of their country with the people of Kataw.

Two or three of the elder men seemed to have a marked authority over the others. Two of them wore their hair divided into long ringlets, as is the custom here occasionally, but more commonly in the islands of Torres Straits, especially in Darnley Island. The others had short hair, and none had long beards.

Some of the younger men tried to come to us in a canoe; but not knowing how to manage it, they only succeeded, after many attempts, in getting a little way from the bank. Scarcely, however, had the canoe begun to move, than, terrified, they sprang from it and rejoined their companions, who laughed and urged them to try again. One of them, in obedience to the orders of an elder, succeeded at last in pushing himself in the canoe close to the "Neva," which was only twenty yards from the bank. The poor fellow was trembling in every limb, either from fear of the water, or fear of us.

When he got on board, I tried to encourage him by shaking his hand and giving him some little presents. I asked him for the belt he wore round his waist, in exchange for some glass beads, but he did not seem to understand the proposal, which I had to make in pantomime instead of vocal language.



He spoke a few words with his people, and then he took off his belt, and received in exchange the beads and a looking-glass, in which he seemed afraid to look at himself. When, however, he was on the point of returning to shore, he wanted to have his belt back, and it was impossible to make him understand that he had sold it, and that if he did not wish to part with it he must return the articles he had received in exchange.

It may be useful to note here that the use of belts is common to this people and to the natives of Hall Sound, although in shape and material they are not at all the same. Those I saw to-day are red, made of split rattan, and wrapped all round the body. To a European they seem instruments of torture. They are very stiff and hard, about an inch thick, and four or five inches wide. The mass formed by all this rattan is fastened together at intervals with string.

The belts in use at Hall Sound and at Canoe Island, in the Fly, are mostly made of bark ; but sometimes, as I had the opportunity of seeing at Epa, of willow plaited with much skill and patience. The men of the coast near Kataw do not use them. Hanging to the belt behind is a kind of tail of long leaves, which may have given rise to the belief that the bushmen are provided by nature with real tails.

In other respects these natives are completely naked. I remarked no ornaments, except the bracelet worn to protect the arm from the bow-string. They use this also as a bag or purse, and put tobacco or a spare string for their bow,

and other little things in it. Our first visitor having returned on land, two more took heart, and either of their own accord, or sent by the others, they came on board. These, too, trembled with fear, and I tried all I could to encourage them. When they were a little quieted, I measured their heads, with the following results:—

Length, $7\frac{3}{8}$ .	Width, $5\frac{1}{2}$ .	Breadth of zygomatic arches, $5\frac{1}{2}$ .
$7\frac{5}{8}$ .	„ $5\frac{2}{3}$ .	„ „ $5\frac{2}{3}$ .

Temporal,  $4\frac{5}{8}$  in both. Height of forehead from the beginning of the nose to the roots of the hair, 3 inches.

I had to give up measuring other parts of their bodies, because they were afraid of my spring metallic measure, which darts suddenly from its case.

Of the three new comers, one was covered with the disease called cascado; the other had round spots on his skin, doubtless the marks of cascado or some similar malady. The third was healthy. They were apparently sixteen or eighteen years old, of short stature, very slight-limbed, and lean. Their chests were very narrow. Their skin appeared to be dark, but it had evidently been recently dyed black; it could be perceived, however, that they are of a lighter colour than Dawan. Their eyes are fine—large, black, and very expressive. The eye-ball is rather pale, and might be called white, when compared with the eyes of Maino, Dawan, Waruki, and most of the others from Moatta. The hair, divided into curls when it is sufficiently long, grows evenly over the scalp, is very soft to the touch, and of a brown colour,

not positively black. Compared with Jackson's, it differs in its even growth on the head, in its colour, and in the nature of the hair itself. It is my opinion that in these people there is nothing of the negro.

The head is small, long, and flattened at the sides; the eyes, though large, are sunken; the forehead almost perpendicular. The orbital bones are prominent, the nose is slightly arched, the lips are moderately thick, and somewhat prognathous. These natives do not disfigure their ears, which are small and well shaped. In height they certainly do not exceed four and a half feet; one of those on land seems rather taller. They use the bow and arrow.

*August 18th.*—Yesterday Waima, one of the great men of Moatta, came on board, to know if I would buy a pig, and asking articles in exchange to the value of about a pound sterling. I acceded, of course, to his proposition, and on his request I sent the men to the village to fetch the pig. When they reached it, they found that Dawan, who had heard of the negotiation, had taken on himself to suggest to Waima to break off the bargain, and to ask instead for a breechloading gun; and my men returned on board empty-handed. I went to the village this morning, with five of my men, to demand that Waima should hold to yesterday's contract, which was made of his own free will, and to reprimand Dawan for having interfered in what did not concern him.

Scarcely had we arrived when Dawan met us, and asked me what I wanted. I replied that I

had come for the pig promised me by Waima. Dawan then repeated that I should have had it if I had paid for it with a gun. I said that I myself would go to see Waima, and that I would come to an understanding with him. Dawan tried to stop me, and to seize my gun. Meanwhile all the men of Moatta came forth from their houses, armed with stone clubs, hatchets, and bows, and began to draw near in a crowd. I ordered my men to stand ready with the three guns, and to threaten to fire if the natives should approach too near. Dawan, in the meantime, let go my gun which he had seized, and springing behind me, took me by the shoulders, holding me very tight. I found myself in a critical position, unable to use my hands, and apprehensive lest he should take possession of the gun. One of my men threatened Dawan from behind with a revolver, and certainly would have made short work of him, but for my orders that fire-arms were not to be used except in a case of real necessity. I contrived to free one hand, with which I took my revolver from my belt, and steadying it under my left arm against Dawan's chest, I threatened to finish him unless he let me go. But such was his rage, that he appeared not to understand my words, nor the danger he was in. However, after two or three minutes he suddenly left me, and sprang upon Bob, seizing him by the shoulders; so that Bob was, as I had been, unable to defend himself.

Meanwhile the natives had approached a little closer to us, and seemed as if they meant to come closer still. I shouted to them to stop, pointing

my gun at them; but after a while they recommenced, although slowly, to approach.

Jackson had neither gun nor revolver with him; but he was provided with half-a-dozen rockets. While the struggle between Bob and Dawan was proceeding, I placed the rockets in the sand, in a very oblique direction, and told the natives that I would fire them off if they took one step farther. They did take one step, and the rockets went off, passing just over their heads. At the sight, and the noise made by the explosion, all the natives threw themselves flat on the ground, as if to let them pass by; their next movement was to scramble up and take refuge in the houses, or behind them. Dawan, who had probably expected help from his own people, seeing them take to flight, began to think of himself, and letting Bob go, he fled to the forest.

Just at this moment, Maino, dressed in a red shirt, came towards us, calling out, "Miro! miro! Peace! peace! No fight! no fight! Captain no fight; me come. Miro! miro!"

The natives began to rally round him. I called out to him to come by himself, with two or three of his own family; and as, notwithstanding Maino's commands, his people began to follow him, I made as if I were setting fire to another rocket, and so stopped them.

Maino came up with Waruki and another of his sons, and said that he had sent Bob and John to fetch the pig, and that Waima was prepared to give it up. I naturally suspected some treachery, and said that the pig must be brought to me. Maino said that the pig would not allow it-

self to be caught alive, and wanted the gun, to kill it, but I refused to send the men; and Maino gave orders that the pig should be driven in our direction, which was done, and when it was near enough Bob killed it.

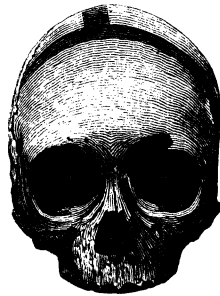
I paid the price to Maino, and peace was restored, many of the natives offering to shake hands. I began to distribute tobacco to those who came, but this nearly occasioned a fresh misunderstanding. All the natives — about a hundred — began to crowd round me; not altogether to my satisfaction, for many of them were still armed. I threw all the tobacco I had left into the midst of them, and in the scramble to get possession of it, a most comical scene ensued. This being over, I declared there was no reason for their coming any farther; and, half in jest, half in earnest, I threatened them with more rockets if they persisted in approaching.

This had the desired effect, and only a dozen remained, who accompanied us as far as the boat, and helped us to get the pig on board. Before they took leave of us, there was more hand-shaking, and they promised to bring some cocoa-nuts and bananas. While the natives and my men were putting the pig on board the boat, I remarked a house where only one man had remained on guard. At the door were about a dozen human skulls, and I offered him some pieces of tobacco for a few of them. He detached two, and, making as if he did not wish to be seen by the other natives, he put them in a basket, covered them with leaves, and handed them to me. By ill-luck two natives were watching, and had seen

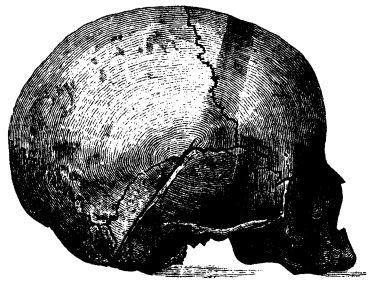
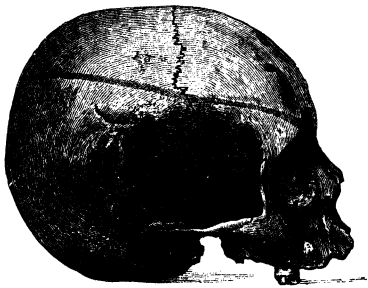




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SKULLS OF KATAW BUSHMEN (INTERIOR).



all. On being detected, he seemed much disconcerted, and vexation and fear might be clearly read in his countenance.

One of those who had come with me to the boat said, on seeing the skulls, that they were his property. I replied that I had bought them with tobacco. The man seemed ill-pleased.

These skulls, according to what the present owner told me, belong to the people whom they call Bushmen.

One of the skulls measured  $7\frac{1}{2}$  in. in length and  $5\frac{1}{8}$  in. in breadth. The other measured  $7\frac{1}{2}$  in. in length and  $4\frac{4}{8}$  in. breadth. They are dolicocephalous, but differ from the dolicocephalic skulls of the Fly, the forehead being almost straight while in those of the Fly it is very retreating.

I witnessed the burial of a child a few months old near a small plantation of cocoa-trees. The little body was wrapped in a small piece of matting, and laid on some soft grass, as in a little bed. It was partly covered with a piece of a woollen shirt, and the wrists were adorned with coloured strings. Thus ornamented, the poor little child was put to sleep—the sleep of death! He is dead, and will hear no more the lamentations of his loving mother! He is dead! but why has the poor woman, after sprinkling a little sand on the grave where her dear one lies, placed on it some cocoa-nuts, a little basket with an old cocoa-nut used for drinking water, a shell, which the natives make use of for various purposes, and a knife? Poor mother! does her heart tell her that perhaps her son is not dead? To-day my

men were in good spirits, feasting on the flesh of the pig. When they have plenty to eat, they are happy.

*August 21st.*—To-day, just as the Moattians had predicted to us yesterday, about 200 bushmen, men and women, passed by. They did not come within 200 yards of the "Neva." Even at that distance the women seemed to be afraid of us, and tried to hide from our sight, walking on the side near the forest, instead of that next the strand.

I remarked that they were heavily laden, and wore garments of grass, like those already described, only with the difference that these were much longer, reaching halfway down the leg. The men were naked, with the exception of the belt and the "tail." They arrived at 10.30, and went away two hours later. They brought sago, and received cocoa-nuts in exchange.

Their village must be about ten miles from Kataw.

On the 29th the Bushmen returned in greater numbers, both men and women. To-day four of them, before going back to their village, which they call Matzingare, came to visit us on board the "Neva," and I obtained the following measurements: <sup>1</sup>—

#### OF THE HEAD.

	Length.	Breadth.	Circumf.	Zig.	Pariet.	Height.
No. 1.	$7\frac{4}{8}$	$5\frac{4}{8}$	$22\frac{2}{8}$	5	$4\frac{4}{8}$	$66\frac{4}{8}$
„ 2.	$7\frac{5}{8}$	$5\frac{4}{8}$	22	$5\frac{3}{8}$	5	$62\frac{2}{8}$
„ 3.	$7\frac{2}{8}$	$5\frac{2}{8}$	$19\frac{6}{8}$	5	$4\frac{0}{8}$	$62\frac{4}{8}$
„ 4.	$7\frac{5}{8}$	$5\frac{4}{8}$	23	$4\frac{2}{8}$	$4\frac{5}{8}$	65

<sup>1</sup> English inches.

OF THE BODY.

	Circumf. Armpits.	Body.	Arm.	Fore- arm.	Hand.	Leg.
No 1.	33 $\frac{4}{8}$	32	13 $\frac{1}{2}$	11	7 $\frac{4}{8}$	20 $\frac{4}{8}$
„ 2.	33	31	14 $\frac{1}{2}$	11	7 $\frac{4}{8}$	19 $\frac{4}{8}$
„ 3.	32	31	13 $\frac{1}{2}$	11	7 $\frac{1}{2}$	20 $\frac{1}{2}$
„ 4.	29 $\frac{1}{2}$	30	14	12	8 $\frac{1}{2}$	19 $\frac{1}{2}$

OF THE FEET.

No. 1, 10 $\frac{4}{8}$ ; No. 2, 9; No. 3, 9 $\frac{1}{2}$ ; No. 4, 10.

Two of them (Nos. 2 and 3) are, I should say, judging as an European, twenty or twenty-two years of age. Nos. 1 and 4 may perhaps be double that age. The rest of my notes as to hair, eyes, colour, &c. &c., I omit, as they coincide with those I made on the 16th of August.

These Bushmen speak a different language from that of the Moattians. I noted a few words, which will be found at the end of the book.

*September 1st*—The month of September does not begin under very good auspices. We are still at Kataw. During the last few days there was some fine weather, and I hoped several times to have proceeded on our homeward voyage; but we are still here, for the short calm has been succeeded by strong gales from the south-west. We tried twice to leave Kataw, but both attempts failed—the one because we ran aground on a mud-bank, and the other because we struck on a rock, so that we found it necessary to return to our anchorage.

The men are unbearably ill-tempered, and quarrels are frequent. The natives, partly by promises, partly by threats, are induced to sell us just what is necessary to prevent our dying of

hunger. Were it not for the pleasure of getting my important collections together, I think all these vexations would almost drive me out of my senses. On the morning of the 5th there was an alarm among the natives of Moatta. They afterwards told me that some bushmen who are not on good terms with the Moatta people had surprised a youth belonging to Moatta in the forest and wounded him. All the young men flew to arms, and started for the scene of the occurrence. A large shell, blown by one of the natives of the village, summoned the women, who had gone to their daily work in the fields; and they returned, shrieking and terrified. It seems, however, that the bushmen did not accept battle, and the affair ended.

In the afternoon we perceived two sails, and towards evening two barks, employed in the mother-of-pearl fishery at Torres Straits, came to anchor at Kataw. This was a real piece of good fortune for me, for I obtained from them a little rice, half a sack of flour, some turtle meat, and some tobacco, which I can use as money with the Kataw people.

On the 6th the barks weighed anchor, and we tried to follow them; but the sea, which was sufficiently calm for them, provided as they were with decks, and of quite a different construction from the "Neva," obliged us to return to our anchorage.

*August 8th.*—I arranged yesterday with my men that some of them should take the boat to Brothers Island, where there is a fishing station at Cape Redlich, and try to obtain provisions. Five of them started at 2 a.m.

To-day was turned into a festival for us, by the arrival of Captain Redlich on board his cutter, the "Ida," in which, last year, he went to Yule Island.

Captain Redlich seems to have been expressly created to come to my help in the most critical moments of my life. I made his acquaintance, at Sorong, in 1872, on the day that I returned with Dr. Beccari from Dorey. I met him again in 1875, at Somerset, when I could find neither ship nor men for my expedition to Yule Island. He then made over some of his own men to me, and for a reasonable sum conveyed me to the island. To-day he not only replenishes my scanty provisions, but rids me of my people. I received from him some tins of preserved meat, some rice, and a sack of flour; and I am now, at last, independent of the natives. We have agreed that he shall take with him those men who have caused me most annoyance on board, or who show too much eagerness to return to Somerset. To-morrow he will take the engineer and Jackson; and, fetching the other four from Brothers Island, whither they are now gone, convey them all to Somerset. There they are to be paid and dismissed. With Captain Redlich was another European, Mr. Pennyfather, who was also engaged in the mother-of-pearl fishery. We dined together on board the "Neva," doing great honour to the potatoes, the salt beef, the biscuits, and other things to which of late we had been little accustomed.

Shortly before the arrival of the "Ida" a large crocodile was seen on the shore, at the mouth of

the river, about 100 yards from us. I fired at him with my rifle, and wounded him, but not mortally. The monster plunged into the water, and was lost to sight for a minute. Shortly afterwards, however, he reappeared; although farther off, and I sent another shot at him, but missed. Again he dived under water, but rose again in the same spot. He was struggling, and in his agony and fury bit at the branches of a neighbouring shrub. I hoped he would expire there, on the spot; but, making a last effort, he again fell into the water, and was lost. This is the third crocodile I have killed and lost, the stream carrying them away.

*September 9th.*—The “*Ida*” sailed this morning, having on board the engineer and Jackson. Captain Redlich promises to bring my letters from Somerset, and also some provisions. Once more I find myself almost alone in New Guinea, in the midst of savages. I may be said to be alone, since only young Wilcox, Bob, and the Chinese cook, remain with me. Yet I experience great satisfaction in being rid of all the others; I was so weary of their continual quarrels, and their perennial ill-humour. Again, I am no longer oppressed with the responsibility of having to provide food for ten mouths every day.

The “*Ida*” is off, and, thank Heaven, I am alone! The winds may blow, the sea may be rough or calm; to me it matters not. Here I am, and here I can stay as long as I please. It is true that I am without the engineer; but I believe that man can do whatever he chooses to do, and that when it is time to steam off, I shall be able to work the engine myself.

As I no longer have the boat, I am in treaty with the natives for one of their canoes.

*September 10th.*—To-day there were great doings at Moatta. Eight large canoes (according to Waruki) are being prepared for fishing at Saibai. Another native told me that they are being prepared for war with a tribe living near the Baxter River. The canoes were carried from the village to the sea, and were then moored near the "Neva," while they were put in order for the voyage. On the shore there was a continual coming and going of women and children, bringing cocoa-nuts, bananas, and taro, to the canoes. Fires were lighted at sunset, and the noises which reached me, informed me that the natives were still pushing on their preparations with the same activity as during the day. By the light of the fires kindled near the canoes I could observe the natives. They looked like moving spectres, and made the strangest pictures in the red firelight. I remarked, however, as soon as actual night came on, that, while continuing to work, they ceased their clamour.

*September 11th.*—The eight canoes that were got ready for sea yesterday, were joined to-day by others from Ture-ture, and they all started together in the direction of Saibai. Men, women, and children departed, and there remain only a few families on guard at Moatta. I observed that each occupant of the canoes was adorned with feathers, and wore a trinket of mother-of-pearl on the neck. The women sat in the middle, the older ones on a platform constructed in the centre of the canoe, on which stood the chief, apparently, of each boat.

*September 12th.*—It would seem that the natives are better judges of the weather than we are, for they predicted the calm which has come. Last night was perfectly still, with such heavy dew that the ground is quite soaked, as if with rain. This morning a light veil of fog covered the tranquil surface of the river, and was only dispersed by the rays of the sun.

The calm has, however, brought us new enemies, fresh torments,—the gnat, and the sand-fly.

With the calm, too, we have gained a higher degree of temperature; the thermometer registers  $90^{\circ}$  in the shade, and  $80^{\circ}$  during the night.

Towards evening we saw a sail, and Bob recognized it for our boat. This was an unpleasant moment for me. I suspected that my men were returning to the “Neva,” and had not fallen in with the arrangements I had made with Captain Redlich. If they returned, adieu to all my peace and quietness.

At half-past seven they came alongside. All four were more or less intoxicated. They told me they had not found Captain Redlich at the island, and that consequently they had not succeeded in obtaining the required provisions. They had not met with the “Ida,” and on this account they had returned. I explained to them what had happened in their absence, and my arrangements with Captain Redlich. This appeared to please them, and they fell in with my proposal that they should depart for Brothers Island, where they could join the “Ida.” After they had rested awhile, they took their leave and departed. Good luck go with



them ! I heard from them that Dr. James had been killed by the natives of Hall Sound. Poor young fellow ! if a cruel death had not put an early end to his career, it is certain that Science would one day have possessed a zealous high priest in Dr. James.

*September 16th.*—Maino and his people have not yet returned, and from the remaining natives I can obtain only a small canoe, in which, every time we go to and from the land, we are in danger of being upset into the water, or being devoured by a crocodile.

I never knew a region so poor in birds as Moatta ; it may be on account of the absence of forest. Insects are also very scarce ; but reptiles are plentiful, and almost every day I succeed in obtaining several specimens.

Two Bushmen arrived to-day, and I passed a few hours with them. If I understand them aright, they do not belong to Matzingare, but to another village. One of these men, although very small and slight, has a fine head, full of character and intelligence. His very strongly marked features are, indeed, far from the ideal type, which to the European is represented by the words "handsome, well-formed, and intelligent ;" but his straight forehead, depressed temples, very prominent orbits, a fine and almost aquiline nose, incipient baldness, large and lively though somewhat sunken eyes, and very thick and handsome beard, render him interesting. But to be really a fine man, he would need much more flesh on his bones. The second individual was, compared to this one, a

colossus. The first appeared to be about thirty-five years of age; the other, who was an image of brute force merely, about twenty-five. In his aspect all is animal. He has an exceedingly low forehead, and is decidedly prognathous. These natives came on board unaccompanied by any of the people of Moatta, and showed very little fear; the elder one, indeed, was quite lively.

I obtained the following measurements:—

#### OF THE HEAD.

	Length.	Breadth.	Circumf.	Zig.	Pariet.	Height.
No. 1.	$7\frac{5}{8}$	$5\frac{3}{8}$	$22\frac{1}{4}$	$4\frac{6}{8}$	$4\frac{1}{8}$	$62\frac{1}{4}$
No. 2, i. e. the younger man:—						
	$7\frac{4}{8}$	$5\frac{1}{8}$	22	$5\frac{1}{8}$	$4\frac{2}{8}$	$68\frac{3}{4}$

#### OF THE BODY.

##### No. 1.

Circumf.

Chest.	Body.	Arm.	Forearm.	Hand.		Leg.	Foot.
$30\frac{1}{2}$	29	13	$9\frac{3}{4}$	$7\frac{1}{2}$	20	$18\frac{1}{2}$	10

##### No. 2.

34	$31\frac{1}{2}$	14	$11\frac{1}{2}$	$8\frac{1}{2}$	23	$21\frac{1}{4}$	$10\frac{1}{2}$
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I could not verify the colour of the skin, because it was dyed. Hair curling, fine, black, and shining, as was also the beard of the elder one.

I made no observations on the second, because his hair was matted together with clay. The first was bearded, and hirsute on chest and belly; the second was neither. The eyeballs of both were white. There was no mutilation of the body.

*September 17th.*—To-day, with little more than a third of a canoe, which was all I could obtain from the natives, I ventured about two miles up the river, to try fishing with dynamite. I killed a quantity of fish, but not being able to

manœuvre the canoe quickly, nor to move freely in it myself, my means of locomotion was very liable to capsize, and to capsize was to run too great a risk. I obtained, however, sufficient fish for the day, and some for my collection. In the mouth of a cat-fish I found seventeen of its young, each little fish still attached to its own egg. When I got on board I put the mother fish in a water-tank, and the young ones came out of her mouth and swam about. They took fright, however, either at something which struck their tank, or at something in the water, and fled immediately, to hide themselves in the mother's mouth.

To-day, for the first time, a canoe with five women and four men came to the "Neva." They came to sell me a fruit which they call "cabara." It is rather good, and the natives make great use of it at this season. These women showed less timidity than the others I have seen. Here, as elsewhere, women are women; and if they are sometimes bashful, and fly from a stranger, it is less from fear of him than of their own men. As usual they were curious, standing up in their canoe, and trying to see as much as possible of the cargo of the "Neva." I gave them some small presents of tobacco, and before parting we shook hands like old friends.

I am confirmed in my opinion that the women here differ very much from the men. They are always of a lighter coloured skin, and more prognathous. I observed that their hair, which they wear very short, grows evenly over the scalp.

The women have small breasts, which slant

upwards, differing in this from the inhabitants of some of the islands in Torres Straits.

*September 18th.*—Six canoes from Kiwai Island have arrived at Moatta. These strong canoes are easily recognized by the cut of their sail, and by a kind of shield fixed on the prow, and ornamented with coloured grasses and feathers. This shield is about a yard in height. I do not know whether it is placed there as an ornament, or as a protection from the water.

A little later the Moatta canoes came in, on their return from fishing. Plenty of life and activity now reign in the village, while in front of it there is a regular little fleet of canoes.

There is constant coming and going between the shore and the houses, and all are busy unloading the canoes, and dragging them on land. Every one being hard at work, nobody comes near the "Neva," and I must give up, for this evening, the hope of news from Kiwai and Saibai. The natives of Kiwai are builders of canoes, and sell them to the people of Moatta, receiving in exchange tobacco, knives, hatchets, and other European manufactures. The Moatta people, in their turn, sell the canoes in several islands of the Strait.

## CHAPTER VIII.

Poor Dash!—Crocodile-meat—Confusion at Moatta—Maino's wife—The "Ida"—Solitude and Peace—Maino's eldest Son—Natives from Waighi—A red-haired Native—The mixed race—Matzingare people—A wig—My collection of reptiles—I resolve on getting away—We combine our information, and set the engines working—A bold and successful adventure—Arrival at Somerset.

*September 19th.*—Poor Dash! To-day he returned on board more dead than alive. A serpent had bitten him in the lip. The upper lip is swelled, he foams at the mouth, and can scarcely stand. I made a deep incision in the bitten part, injected carbonate of ammonia into the wound, and administered some doses of the same, mixed with water; but nothing seemed to relieve the poor animal.

Maino came to pay me a visit, accompanied by four natives of Kiwai, who brought me a little sago. These people I had seen before at Tzamari; with them, however, was one man whom I did not know. He would not come on board, but remained alone on the shore. He is, without exaggeration, a giant among his people, taller by the head than all the others. He stood motionless on the shore all the time his companions were on board, leaning on his bow, still as a statue, steadily

watching. I made Maino invite him, offering him tobacco, beads, and other things, but he refused to come. I do not hesitate to say that he is the most finely-formed man I ever saw; and only one statue among those known to me can be compared to him, i.e. the Farnese Hercules. Tall in stature, so as to exceed, as I said before, the average height of his companions by a head, he has strong and muscular limbs; his chest and shoulders are broad; his head is small in proportion. I know not how to describe the harmony of his figure. Until now I had believed that the art which created the Farnese Hercules had surpassed nature; but to-day I must retract that opinion, as I contemplate the form of this unknown savage. The colour of his skin seemed to me to be somewhat lighter than the others.

*September 21st.*—Poor Dash! His sufferings came to an end to-day, forty-eight hours after he was bitten. This morning, I thought he seemed to be regaining strength; he drank twice, and changed his place oftener, moving, although with difficulty, from one part of the “Neva” to another.

Towards the middle of the day, while I was preparing the skin of a bird, I saw Dash coming to me. I caressed him with my hand; he wagged his tail, looked up at me fixedly, with blue, dilated pupils, and fell dead at my feet. I touched and shook him, but in vain. He was dead, and as cold as if he had been dead many hours. The river was his grave, for to-day I had not a canoe in which I could go ashore and bury him. The splash made by his body falling into the

water echoed painfully in my heart. In losing poor Dash I have lost a friend. I have always believed the friendship of a dog to be one of the truest and most lasting. When a dog loves, it is until death. We cannot always say this of human friendship and human love. Poor Dash!

*September 22nd.*—I knew the natives of Moatta had fished up the crocodile that I killed on the 8th, and that they had eaten it, but had preserved the skull. I sent to offer them a shirt and some knives for it, but my ambassador came back, saying that the native who had possession of it pretended to know nothing at all about the matter.

I then sent Bob and Wilson as envoys to Maino, to tell him that if I did not immediately receive the skull of the crocodile, which I regarded as my own property, but for which I was nevertheless willing to pay, I should, as soon as it was night, send rockets into the village. Maino, having no taste for fireworks, immediately gave orders that the skull should not only be restored to me, but that it should be brought on board by the man who had stolen it. Waruki accompanied him on board. It is a fine skull, exactly two feet long.

*September 23rd.*—Very early this morning there was great confusion at Moatta. Some natives brought me news of an attack by Bushmen on certain Moattians, whom they surprised in the forest. They came to ask me to accompany them with my gun and revolver; and to allow Bob to go with them to drive away the Bushmen. I naturally replied that their enemies had nothing to do with me. If they had attacked the village I should certainly have lent my help to

defend it; but since they were in the forest, I had no reason to interfere.

The women did not go to their work in the fields; but all of them, with their infants on their shoulders, and followed by the children who were able to run alone, passed before the "Neva," on their way to a part of the forest distant from the scene of battle. Only two or three sick men accompanied them.

All the men able to use a bow and arrow have marched against the enemy.

I waited almost all day to see the return of the warriors, and to learn the result of the battle. They did not come back until towards evening, when they entered the village in marching order of three columns. They made a short halt before entering; I could not well see why, on account of the distance, but they certainly went through a ceremony of some kind.

I could distinguish that some of them carried on their shoulders a kind of litter made of cocoa-leaves. They were bringing back a dead body and a wounded man.

The corpse and the wounded man were taken to the house of the unmarried young men, but were refused admittance. I sent Wilson to obtain information from Maino; the latter, however, denied that there had been any combat, and declared the Bushmen had fled without showing fight. I doubt the truth of his assertion; and I believe that some horrible scene is taking place at Moatta to-night.

*September 24th.*—Maino did a thing to-day that I could not have believed possible. He brought



one of his wives with him on board the "Neva," and presented her to me. I invited them to remain to dinner, and they accepted. Although Maino's wife belongs to the aristocracy of Moatta, she is very ugly; and she is also very old.

Luckily my table was well-provided. The wife required a little pressing at first, before she would sit with us. My persuasion, however, or that of Maino, or the sight of the meats, prevailed, and she consented. She sat next to Maino, and ate, without ceremony, of everything, without, however, showing too much avidity. She seemed pleased with the attention paid her, and I am sure she returned to land with a better opinion of me than my fireworks and rockets had led her to form previously. At first she tried to use a knife and fork as Maino and I were using them, but she soon got tired, and preferred her fingers, to which she was more accustomed. In other respects she behaved well, and I cannot help thinking that the manners of these people, whom we call savages, are far superior to those of our own lower classes. They are self-possessed; and if not oppressed by fear, show themselves less embarrassed, and less awkward, than many peasants of the Latin races under similar circumstances.

During dinner I tried to draw Maino out on the events of yesterday. He began by denying that there had been any fighting. I told him, however, that I had not only myself seen the dead body, but that one of the children of Moatta had told me that he had helped to carry it to the village. He seemed displeased and surprised on

hearing this, and said something to his wife. He then told me that, in fact, a youth of Moatta had been surprised by Bushmen, who had taken his head, and then fled from the spot. The Moatta people had recovered the body. In token of war, Maino's beard is plastered with clay.

In the afternoon the "Ida," with Captain Redlich on board, arrived here. He brought me letters from Europe, and Australia, and from Somerset the provisions I had sent for.

*September 26th.*—The natives of Moatta went over this morning to the village of Ture-ture, to a feast and a dance. They were all painted black from head to foot, the white shells worn on the necks of the younger ones standing out distinctly on their black skins. The sons of the chiefs wore a breast-plate of mother-of-pearl. Several were adorned with cassowary plumes, set in a circlet of white shells. They were armed also with bows and arrows.

*October 4th.*—During the last few days nothing worth notice has happened. The dulness of my solitude was dispelled by collecting insects and animals. But either on account of the season, or of the locality, both are scarce.

After many days' absence, Maino paid me a visit to-day. Perhaps he now looks upon me as belonging to the village, and therefore would not give himself the trouble of putting on trousers or a shirt; at all events, he made his appearance completely naked, according to the custom of his country. Whether it is better to see a man, especially a black man, naked, or in unclean clothes, is a problem as yet unsolved. For my

part, I prefer Maino naked to Maino in dirty rags. He brought me some roots of a plant, which the natives chew for its narcotic and intoxicating properties. Maino explained, that to experience its intoxicating effects perfectly, tobacco should be smoked after chewing a certain quantity of the root. It may be inferred from this, that the plant does not possess very powerful virtues. He then began, more by signs than words, to show the influence of sleep and dreams. He remained two minutes opposite me with his eyes closed, his head nodding, and a smile on his lips, then opening his eyes he exclaimed with emphasis, "Very good, very good."

To-day he presented to me one of his sons, a youth apparently about eighteen years old, rather short and thick set, but well made and well proportioned.

He does not resemble his father, or Waruki, his half-brother. I remarked the lighter colour of his skin, compared with that of his kinsfolk. I have already stated in another place that the women are lighter than the men, and during the last few days I have seen some very light in colour, one especially, whom I suspect of being partly European. Among the men Maino's son is decidedly an exception.

I learnt from Maino that this son is his first-born; it is, perhaps, on account of this fact that he is proud, selfish, and savage. He remained silent the whole time; I tried in vain to make him laugh or speak. He seems to differ from his father and brother physically as well as morally.

I am in a position to state positively that there

exists a mixture of races among the people of Moatta; and I cannot agree with an explorer who, writing about this people, says that they are as black as his boot-blackening. I do not deny that they may appear so sometimes, but the dye artificially produced by charcoal must not be taken for their natural colour.

*October 6th.*—Maino passed in a canoe, accompanied by some natives of a village at the mouth of the Fly, opposite Parama Island, called Waighi.

I called to Maino, but at first he did not seem inclined to come; however, I showed him the body of a big bird that I had just finished plucking, and he made up his mind to come and take it. He stayed about five minutes, so that I was enabled to make the following observations on the natives of Waighi.

The male individual, once seen, can never be forgotten, on account of his big head on a small body. He has a large face, and a broad forehead, and is not at all prognathous. The colour of his skin is rather dark, and on the whole he differs so much from all the Moatta men I have known, that he could never be confounded with them. The woman, on the contrary, calls for no particular remark; she is not to be distinguished from the women of Moatta. She is, however, tattooed in the centre of the chest, between the breasts, with a design like a capital A. At Moatta I never saw either men or women tattooed. I observed that a little girl, seven or eight years old, had the lobe of one ear drawn out like the men at Moatta, and that a piece of wood of a peculiar shape,

that I had never seen before, was fastened to it. This I obtained for a piece of tobacco.

Subsequently eight individuals from the same village came close to the "Neva," but they only stayed a few minutes. I observed that they greatly resembled each other, and were all equally unlike the inhabitants of Moatta.

Being under no obligation to give away tobacco for bananas and nuts only, I contrived to obtain some articles in exchange for it which, at first, the natives had refused to sell; and to-day I bought some pieces of a large sea-shell, which, sharpened at one end, and fixed into a handle, serve as spades.

*October 16th.*—Bob killed a small crocodile to-day. I am keeping its skin in spirits. The flesh was very white, and felt as I handled it like the flesh of a large fish. Some natives brought me a turtle; the flesh was also very white, perhaps because it was young.

I took it into my head to play a trick on Wilcox and Bob, who had gone ashore. The Chinese cook and I roasted the crocodile and boiled the turtle. When dinner-time came, Bob and Wilcox found the roast meat much better than the boiled, and preferred it; but when they discovered what it was, they were very near pitching the plates and forks into the river. But I made them observe that since they had found it excellent, there was no reason why they should not eat it, and persuaded them to continue, for I saw how much they enjoyed it. I had some qualms afterwards, but I reflected that even had the father and mother of this crocodile been

guilty of eating human flesh, he himself, at his tender age, must certainly be still innocent of such an act. In his stomach, which I had examined, I found only crustaceous fish; and I was therefore not afraid of tasting his flesh myself. I thought it delicious, and decidedly preferable to beef preserved in tins.

The Chinese cook, who was always fond of culinary novelties, did not hesitate to eat of this one, and only regretted that the crocodile was so small. I admired the resources of nature, which provides crocodiles, pythons, iguanas, and other similar animals, in place of beef, mutton, deer, hares, &c., which do not exist.

About 200 natives of Matzingare arrived at Moatta to-day. Fifty of them came down to the shore opposite the "Neva," to see this monstrous canoe and her strange captain.

Several women, who, I observed, had rather handsome faces, were well made, and very slim, also came. Their solitary garment was worn long, reaching below the knee.

Some of these Bushmen brought me some fine reptiles, for which I immediately paid with tobacco. The crowd on the beach admired from a distance the dealings going on on board the "Neva." They could not understand why I should give one or two pieces of tobacco, which they look upon as a treasure, in exchange for a lizard.

Behind a group of women I saw a child of seven or eight years old, who attracted my attention by the colour of his skin. He certainly was no blacker than myself, burned as I am by the

sun ; the only difference between us was that his skin was redder. His hair was red ; but this colour may have been artificially produced ; though I do not think so, because the colour of the skin was natural. Is he an albino ? I scarcely think so ; for the other albinos I have met with in New Guinea were positively white, although generally exposed to the sun's rays, from which it would seem that the sun has very little effect on the skin of albinos. I believe that in this boy I saw a case of hybridism—or rather, of a cross between a black race and a race more or less white.

As for his hair, its colour may have been, as I said, artificial ; although real red hair is not so rare in New Guinea as might be supposed. It is also common for individuals with dark hair to have the hair on the body red, except on the armpits and the pubes.

I wished to have the boy brought on board, and offered him a large piece of tobacco. When, however, he discovered that he was the object of my curiosity, he hid behind the women ; and they prevented any of the men, who, being greedy for tobacco, had gone to fetch him, from bringing him to me.

I have already stated that I had seen a young man from Moatta who was so fair that I at once suspected he must be the result of a cross with an European. Now that I have seen this child, who belongs to the interior, and whose people have never mixed with white men, and as I exclude for various reasons the albino theory, I regard the mingling of two races—the yellow and

the black—which has occurred, and will no doubt continue, as an indisputable fact.

That those two races, in my opinion, have unconsciously striven for the possession of New Guinea. The yellow race possesses the east, and the black the west; but both have reached the centre—in what proportion it is hard to say. From what I have seen I think the yellow must preponderate.

Moatta seems to be a great centre; and to-day five more large canoes arrived from Waighi.

All the natives were adorned with cassowary feathers, and wore a breastplate of mother-of-pearl on their necks, besides a large white shell which served the purpose of decency.

One of these natives had been employed by the captain of a vessel engaged in the mother-of-pearl fisheries at Torres Straits. He had been at Sydney and at Somerset, and is now in possession of a gun. Besides this, he has also brought from civilized places a cancer which is eating away his nose. He and another native, armed with a stone club, having got into a canoe, paddled towards the “Neva,” taking with them a Moatta man. It is not usual for the people of these parts to come on board the “Neva” armed, they lay down their arms on the shore; so that seeing these came armed, I asked them what they wanted, before I allowed them to come on board.

The man armed with a gun replied, in good English, that he wanted to see the “Neva,” whether I wished it or not. I told him to be off, and not to attempt such a liberty. He replied that, having



a gun, he could go wherever he pleased. I rejoined that my rifle was double-barrelled, and ordered him to withdraw.

The Moatta man, being as yet less civilized than the other, understood at once that it was better for them to go; and paddled off with his companions, to land as quickly as he could. When Bob and Wilcox returned on board, they told me they had met this same individual at Tureture, and had learned from him that the people of Waighi are incensed against the whites, because seven Waighi men had been seized upon and taken to Somerset, where they are employed in the mother-of-pearl fishery. One of the seven had died. This man had made inquiries about me from Bob, and had expressed his intention of coming on board. Bob told him not to come, saying that I did not allow strangers on board; but the other replied that he would do so at any price. Hearing this, I congratulated myself on not having permitted this strange individual to come on board my ship.

*October 17th.*—Attracted by the smell of tobacco, just as flies are by honey, the natives of Matzingare come to me every day, bringing animals, especially reptiles. The natives of Moatta are annoyed by this, and have tried to prevent the Matzingarians from coming. The latter, therefore, come by stealth, deposit their contributions, and then make off to the forest.

To-day an old man came from Matzingare, and, having nothing else to offer me for the tobacco he wanted, he brought me a wig, roughly made, and ornamented in front with seeds. The hair is

divided into long ringlets, which, when the wig is worn, fall behind on the neck and shoulders, and give the wearer a singular appearance. On the old man's chin were two long wisps of beard, and for a piece of tobacco he sold me one of them, and then returned to land. Here he met my Chinaman, to whom he offered the other wisp, for a little more tobacco, but the son of the Celestial Empire declined the article, which was of little value to him. I believe that to get tobacco this old man would sell, if not his wife, at least his soul.

Meanwhile, my collection of reptiles is increasing; specimens like those I found at Naiabui and Yule Island, which I have previously described, but which were lost in the shipwreck, often come into my hands.

*October 26th.*—During the last few days I have continued to receive specimens from the people of Matzingare. Among others was a probably new species of *Dactylopsila*.

I observed that this animal feeds on insects, and especially on ants. It has a very long tongue; and a viscous fluid, which probably serves to capture the ants, is secreted from the glands. I also obtained a venomous serpent, the *Achantophis*. All the specimens I have hitherto collected in New Guinea bear so strong a likeness to each other, and differ so much from those of Australia, that, contrary perhaps to the opinion of other naturalists, I am inclined to believe this reptile to be of a distinct species from the *Achantophis antarctica*.

The natives of Moatta, envious of the natives

of Matzingare, on account of the tobacco they have had from me, will not pass them without offering battle, and the poor Matzingare people have had to fly.

*October 29th.*—Yesterday I saw Maino, and reproached him because his people prevented the Bushmen from bringing me animals, and I complained of Dawan in particular. Maino told me that he would see to it, but advised me to take no heed of Dawan, because, said Maino, he is a man who talks a great deal, and thinks very little. Maino must have said something to Dawan, for he appeared to-day opposite the “Neva,” and, armed with an American hatchet, vented his fury on three canoes which were moored to the bank.

A little later in the day a canoe with three women came alongside. I bought three serpents from them.

When the women had returned to land, Dawan broke the canoe they had used in pieces. I then asked him whether he wanted to break up my canoe; he fortunately answered “No,” and, as if seized with sudden fear, he fled with all speed to the forest.

*November 3rd.*—The weather appears to be settling to calm. I infer this from having seen the Moatta and Ture-ture canoes go out fishing.

After the men had gone, the women, of all ages, and numbering about eighty, came opposite the “Neva,” and prepared to cross the river in a canoe, which made many successive voyages to the village of Ture-ture. Half way, the women of Ture-ture were waiting for the women of

Moatta. Last Sunday something similar took place; but on that occasion it was the men who went across the river to a village seven or eight miles from its mouth, in order to receive a large present of cocoa-nuts, taro, and bananas.

Seeing that the weather is becoming calm, and that without the help of the Bushmen I can do little towards my collection, I thought to-day that it was time to get the "Neva" in readiness for her return voyage. I called my crew, viz. Wilcox, Bob, and the Chinese cook, round me, and asked them how much they knew about the engine, and what they had seen the engineer do? Adding all our knowledge together, I determined to put it to the test, and to see whether I could not fill the post of our absent engineer. The experiment was a complete success, and we re-ascended the river for three miles. At one moment I was afraid that there was not sufficient water in the boilers; and not having then found out how to feed them from the pump, I thought every moment there would be an explosion. By good luck, on the contrary, there was too much water, and all went well.

November 1st.—The forest here is richer in insects than near Moatta, and I made a nice collection. I found a fine *lucanide*, of which I had already obtained one specimen at the mouth of the Fly, in 1875, and which then was a new species to me, of a very interesting kind (*Cyclommatus Margaritæ*).

While I was in the forest, the "teacher's boat" from Tawau Island arrived. It had been sent from Somerset by Mr. MacFarlane, with letters

for me. The teachers told me that the sea is calm, and they went away in the evening. We employed the rest of the day in preparations for our departure to-morrow.

*November 2nd.*—This morning, about eight, all was ready for starting, when we heard voices in the forest. They were those of my friends the Bushmen, who, knowing I was in this spot, and no longer fearing the Moatta people, had come to bring me specimens.

Among others, they brought me a magnificent serpent of a very pale green colour, marked with white along the back, and with a yellowish belly. This is a very curious serpent, both in colour and in its shape, flattened at the sides. It is the first specimen I had obtained. (*Chondropython azureus*.)

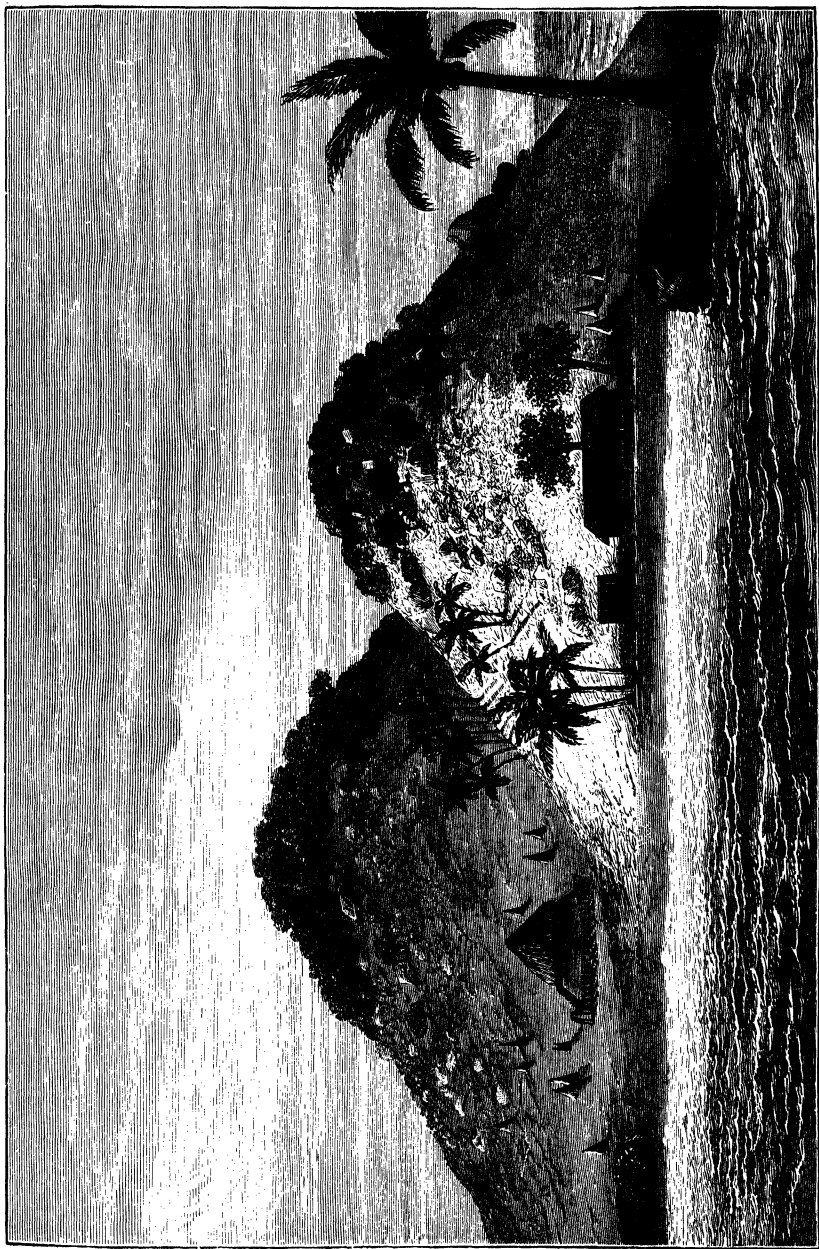
I shook hands for the last time with these good savages, weighed anchor, and with flags flying steamed down the river. We reached the mouth at high tide, and were able to get out without loss of time.

Thus we had no opportunity of bidding farewell to our friends of Moatta. The weather was calm, the current favourable, the fuel dry, and a light breeze filled our sail. Steaming at the rate of seven miles an hour, we soon reached Tawan. Having now learned the use of all the parts of the engine, I find that the duties of an engineer are not very difficult, and after the experience of to-day I should not hesitate to undertake to work the "Neva" to Somerset.

Elia, the teacher who lives in this island, has kindly put one of his servants at my disposal,

and also the boat belonging to the mission, for since my men left us, we are without our own.

*November 4th.*—I passed some hours at the little village of Tawan, if the two or three houses inhabited by a few natives may be so called. Some of these had returned from turtle-fishing, having taken one turtle of colossal size. The appearance of these houses is miserable. The natives are provided with many European comforts, which they receive from the missionaries. They use plates, knives, forks, bottles, and drinking-glasses, woollen blankets, and the principal articles of clothing. None of the men here are completely naked; all wear a piece of calico round the waist. The women frequently wear a kind of full chemise. Some of the children, however, were perfectly naked at seven or eight years' old, while at Kataw they are clothed from their earliest infancy. I observed, that the women do not wear their chemises for the sake of decency, but from luxury and pride; for I often saw a woman take off her garment, and content herself with a tuft of grass before and behind. As to the type of these people, I shall perhaps be repeating what I have said before, that they belong to no special type, but are a collection of all. There are prognathous and orthognous faces, high and low, retreating and convex foreheads. They have something of the negro, of the Arab, and of the Australian. The natives are certainly blacker than the people of Kataw. Some have a marked resemblance to the face of the camel, in the shape of the nose and lips.



TAWAN ISLAND. — THE CHURCH AND ANTS'-NESTS.





The women, who are robust, strong, and tall, differ from the Kataw women more than do the men. They have darker skins, different features, and much larger breasts; the latter are upright in the young women, and very long and pendant in the old; while at Kataw they are always rather small and upright even in old women.

*November 5th.*—The village of Tawan, as I have said, consists of only two or three houses, which are near the sea-shore, a little above high-water mark. Two big trees, with large leaves, a little behind the houses, serve as shelter to the natives, and they spend their day beneath them, working or sleeping on matting.

To the right of the houses, looking towards the sea, there is a small copse of fine trees, of a beautifully deep green. From thence stretches a plain where nothing grows but grass, and over which large stones are profusely scattered. Here and there, rising up like headstones in a cemetery, are great numbers of ant-hills.

The extreme north point is protected from the sea by rocks, against which the waves expend their force. A solitary cocoa-tree at this spot looks like a lighthouse.

Behind the houses are some cocoa-trees, belonging to the missionaries—at least, so says an inscription on a board fixed to a pole. In what language this is written I do not know, but it bears the date 1876; and is certainly the first example of written law in New Guinea.

It is a curious coincidence, that near this inscription, which I consider a sign of civilization,

stands the "devil's house," of which I have already spoken. Last year, at the end of November, I counted the shells of sixty-five turtles; to-day I saw but five. The others have been taken away, the natives told me. The stench exhaled from this diabolical house is horrible, and will soon be made worse by the arrival of fresh victims. It seems strange that the natives can endure it.

This year I observed that there were no human skulls; last year there were two. The others, perhaps, had been taken away, like the turtles. Bob tells me that at the Fiji Islands there are similar "devil's houses," and that the human skulls heaped up near them sometimes exceed two hundred in number. He added, that there were pots big enough to cook twenty men at a time. Of course I leave to Bob the responsibility of this assertion. Two hundred yards from the "devil's house" is the "house of the Lord," or small church, built by the teachers, in which they collect the natives to hear the missionary on Sundays. The teacher, Elia—a native of the New Caledonia group,—reads, sings, and prays, in several languages, which I do not understand, and some of which are not understood by the natives either; but that is a detail of little importance. About thirty men and twenty women were present at the service to-day. The men wore shirts and trousers, and the women long bright-coloured garments.

The behaviour of the natives during the service was decorous, and they seemed to pay attention to what they heard—whether they understood it, I do not know.

*November 6th.*—We left Tawau, and arrived at Brothers Island. It is deserted—as it has been abandoned by Captain Redlich. I hoped to find our boat here, but was disappointed. We had to improvise a raft to go ashore, and Bob inspected the island, to discover whether the boat had not been hidden in some other part of it. He could not find it, but in its stead took possession of an old forsaken canoe.

*November 9th.*—The rough weather compels us to waste our time in this desert island, which is poorly provided with animals. There are neither birds nor insects, at least at this season.

To-day, while we were on land, Tiensin was bitten in the foot by a venomous serpent. The effects of the poison showed themselves so suddenly that I feared for his life. Having however, applied powerful remedies, not more than five minutes after the bite, I hope to save him. His leg became in a few hours extraordinarily swelled, and at the same time livid and purple.

*November 12th.*—Tiensin is on the way to perfect recovery.

The wind having fallen, we started this morning for Mount Ernest Island.

*November 21st.*—To-day we are back at Somerset. We left Mount Ernest this morning, before sunrise, in a perfect calm. With the first dawn of morning we could see on the horizon the coasts of Australia and of Albany Island, for which we were bound. Until ten o'clock everything went on splendidly. The "Neva" was going at full speed, when all at once the little engine-

room was flooded with boiling water. What was the matter? What was *not* the matter? Neither I nor my people could explain this unexpected overflow of boiling water, but of course we anticipated a serious calamity. The fires were put out, and I waited to see what would follow.

My men went for safety to the prow, and I stood by the helm.

With the help of the stream, which was in our favour, and of a light breeze which enabled us to use our sail, we cast anchor, at 2 p.m., at Somerset, and thus ended the voyage of 1876.

# THIRD EXPLORATION OF THE FLY RIVER, 1877.

## SECOND VOYAGE OF THE "NEVA."

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### CHAPTER I.

I make preparations for my third exploration of the River Fly—My companions—Somerset—The "Neva"—Bob—Farewell wishes—Jack—A bad beginning—Mr. Chester—Bad weather—We run for shelter—A miserable night—Our encampment—Ah-Sam takes lessons in taxidermy—Birds—Quarantine—Another bad night—Turtles' eggs—A sea-pie—A beautiful beetle—A new moon.

HAVING obtained permission from the very liberal Government of New South Wales to use for some time longer the small steamer "Neva" for the purpose of exploring the Fly River, I made my preparations at Sydney for a long absence, and I engaged an English engineer and five Chinamen to accompany me. I selected Chinamen because I knew them to be sober, patient, and industrious, as well as fond of novelty. I had become acquainted at Sydney with one Ah-sam, who, in the hope of finding a new country in which to make his fortune, had already travelled over a great part of the old and new world, but without succeeding in that object. I spoke to him of New Guinea, and the probability of finding gold, also

sandal-wood, nutmegs, and other things, in that unexplored country. The hope thus excited, of making his fortune without much labour, induced him, after some reflection, to accompany me to New Guinea. He undertook to provide, and very soon succeeded in finding, five countrymen of his own who shared his ideas and expectations, and were willing to join him. It was agreed they should work for me at the rate of four pounds sterling a month, that I should maintain them, and pay all expenses of the voyage, including the return to Sydney or Hong-Kong from Somerset.

*April 29th.*—With the engineer, Mr. C. Preston, and the five Chinamen, I arrived on the 29th of April, 1877, at Somerset, on board the “Brisbane.”

I had just returned from one voyage, and was on the eve of another. I found the “Neva” had been repaired and painted black. She looked to me like a phantom, for she was the only one painted in that sombre colour of the many boats stationed in the little bay of Somerset. At sight of her I felt an inexplicable sensation. Was it joy? Was it a mysterious voice whispering to me? Perhaps it was a presentiment of coming misfortune. I should need the gift of prophecy to explain this.

I had left Bob in charge of the “Neva,” and he now came to meet me on board the “Brisbane,” and to tell me how matters stood on board our ship. He had only found two men to accompany me on my voyage, South Sea Islanders, named respectively Jack and Tom.

I asked Bob why he had not hoisted my flag on

the "Neva," and he answered that the police magistrate had forbidden him. As I did not believe the law was against my doing so, I sent Bob to put up the flag, and shortly afterwards I had the pleasure of seeing it flying.

I passed the day on board the "Brisbane," and at half-past eight o'clock I took leave of the few passengers, and the officers of the ship, and of a charming, amiable English lady with whom I had passed some pleasant hours during the voyage from Sydney, which may be the last. . . . I hope, however, and expect that we may meet again . . . . Farewell—if it be for ever. May the hope find an echo!

Two rockets from the "Neva" saluted the "Brisbane," which, in return, sent up a rocket and fired a gun. Good-bye, good-bye, and then the "Brisbane" disappeared behind Somerset Point.

Here I am, I may say alone, on board the "Neva," alone with my thoughts and recollections. All is confusion on board. I know not where to bestow myself. Thus commences my voyage. Adieu to the comforts of life! I have left them on board the "Brisbane."

*May 2nd.*—The month has not begun very propitiously, owing to the quantity of gin imbibed by my three Polynesians. It happened that, having been invited on shore, I was obliged to absent myself from the ship. On my return I found Jack quite drunk and disposed to quarrel with the Chinamen. I recommended him to go on shore, as I thought the "Neva" was not large enough to accommodate those who were unable to stand

on their feet. He consented to do so, but, being under the impression that he had not yet drunk enough gin, he took with him another bottle. Bob charitably decided to go with him—whether for love of the bottle, or for the sake of friendship, I am unable to determine. In about half an hour I heard his voice—which, as well as his wits, was affected by drink—angrily challenging the police magistrate and his followers to a personal combat.

Later on in the night, two water-policemen brought him back to the ship, where I refused to receive him in such a condition, but desired them instead to take him to the “lock-up.” At a still later hour, Jack also returned, promising to be very quiet if I would allow him to come on board. Quiet he then remained, but he had behaved so badly when on shore, that this morning he was summoned to appear before the magistrate. My presence was also required in the court, where I found the affair was serious, for Jack had wounded another South Sea Islander in the head. The case was so grave, that the magistrate considered two justices necessary to decide it; and as one of these was absent, I should have to wait ten or twelve days for his return.

I thus found myself either threatened with the loss of a man who is very useful when he is sober, or obliged to protract my stay at Somerset until the weather became worse; and should the south-east monsoon set in before I could reach the mouth of the Fly River, all my expectations from this expedition would vanish in smoke. I represented the case to the magistrate, but he would hardly



listen to me, and said the law must take its course. I succeeded, however, in coming to an understanding with the offending and offended persons outside the court, by which it was agreed that the latter should accept pecuniary compensation to the amount of six pounds sterling, and withdraw the charge. The magistrate read, in a stentorian voice, two articles of law, by which Jack was threatened with no less than six months' imprisonment, and declared that he could not admit the validity of an arrangement made outside the court; but I pleaded another article of law, and the matter was then satisfactorily settled. Before the magistrate would consent to this arrangement, he explained, in a loud voice and at great length, that he wished to make a solemn example of drunkards, and that he intended to begin on this day and with this especial case.

I humbly observed that his idea was an excellent one, for it was full time that an example should be made in order to put a check on a vice which was the disgrace of Somerset. But I strongly objected to two of my men being chosen for that purpose, as this selection would prevent my leaving Somerset, and probably frustrate my plans altogether. I added that perhaps he could wait a little longer, since he had already waited so long, when another opportunity of his carrying out his determination would certainly present itself, either in the person of a white man or a man of colour, for in Somerset it is easier to find drunkards than sober men. My words appeared to convince him. With magisterial emphasis and eloquence, he answered, before several witnesses,—

“Well, Signor D’Albertis, if I consent to give these men their liberty, I do so in the hope that one day you will have to shoot them with your own revolver, and thus rid Somerset of two such bad characters.”

With all the respect due to the dignity of the magisterial office, I answered,—

“Mr. Chester, I am exceedingly obliged to you for your kindness, and I assure you that, if these two men ever deserve it, I will bring them back to you, that you may hang them with your own hands.”

This business terminated, I was permitted to take Jack and Bob with me, having paid six pounds sterling for the former, and one pound for the latter. Bob will remember the past night for a long time, from the lesson given him by the water-policeman, and which had been so especially applied to his eyes, that to-day he cannot open them, and is unable to walk without holding the arm of a friend. They certainly have a grand method in Somerset of appealing to the reason of a drunken savage! It is to be hoped the magistrate may soon make some severe examples!

*May 3rd.*—Three days sufficed to get the “Neva” ready for departure. This is the fourth day since our arrival in Somerset, and we are already far from that place. We left this morning at 11 a.m., directing our course towards the island of Mount Ernest, which we reached at 5 p.m., and we are now at anchor on the west. A light breeze from the east and a somewhat angry sea enable us to test the value of the changes made

in the "Neva" to render her seaworthy. I have come to the conclusion that there is still more to be done to effect this desirable object. To-day the sky in the west was the colour of fire, until darkness threw a veil over the adjacent islands. The wind has risen, and I fear to-morrow we shall not have the calm desirable for a boat like the "Neva," particularly as she is heavily laden. The Rev. Mr. MacFarlane and Mr. Lawes came on board before we started, to wish us a safe journey. We weighed anchor, and as we passed by we were saluted from several of the houses with the usual fluttering of handkerchiefs.

Once more we were on the sea, prepared for danger, yet full of hope, of memories, and perhaps illusions. Alone on the sea once more, with the image only of dear ones engraved on the heart!

*May 4th.*—The horoscope drawn yesterday evening from the fiery sunset did not deceive us, and at night there arose a fresh breeze from the east. Early this morning I sent the men on land to cut wood, and to get a supply of water, but they were late in returning, and it was half-past twelve o'clock before we started. The wind continued to blow, and the sea became agitated, so that, although I gave the order to start, I was doubtful of our being able to pursue our course. This doubt soon became certainty, and the waves, dashing on the ship's side, threatened to wash away our provisions. We decided, therefore, to shelter behind the small island of Pole, and anchored there near a coral reef.

The men went on shore to fish. Towards evening the wind increased, and the "Neva" rolled so

heavily that it was far from agreeable to be on board.

Still drawing my horoscope from the moon, I fear we shall be detained here for some time longer. To-morrow the moon will be in its last quarter, and, if my observations of last year are to be depended upon, we shall have high winds.

It is provoking to be thus stopped at the outset of our voyage, and it will be still more so if the delay continues, for we are losing our time and consuming our provisions.

*May 5th.*—We have passed a miserable night from the continuous rolling of the “Neva.” The wind blows furiously, the sea is raging, and the strong current would make me fear that our anchor would give way, were it not that it is firmly cast, and therefore not in danger. It was with joy that we saw the sun appear from behind the mass of dark clouds which since yesterday have darkened the sky. Although it may not give us a promise of calm weather, it at least enlivens us with the hope of less suffering; for that which is ugly in daylight becomes far uglier in the gloom of night. Being in want of drinking-water, I sent the men ashore on the desert island in search of some; and when they returned they stated that there was abundance of water there. I ordered them to encamp on the island until the wind abated sufficiently for us to continue our voyage. The poor Chinamen, who had been suffering much from seasickness, were very glad to go on shore, and did not wait to be told twice before they took their things and were off.

We are encamped on a bare coast, without vegetation, save some long grass, such trees as the island possesses being on the other side of the mountain.

We are divided according to race—the engineer is in one tent, the three Polynesians are in another, and the five “Celestials” are together in a third, near the kitchen, where they eat, sleep, chatter, or play, as they please.

There is not much to tell. We are in quarantine, and cannot say how long it may last. The wind was high during the night, but has subsided to-day. We endeavour to kill time as best we can, each one being free to do as he pleases. I took my gun, and spent the greater part of the day shooting, and I brought down a number of birds, more than sufficient for our dinner. Ah-Sam took his first lesson in taxidermy, and succeeded so well that, if the quarantine lasts long, by the time we reach the Fly River, I shall certainly find in him a valuable assistant. Among the birds I remarked a turtle-dove and a quail, whose young are now beginning to fly, and also a *Cisticola*; whilst amid the flowers of the cocoa-tree I saw the *Nectarina frenata* in various stages of moulting, and some young ones. The *Pitta similima*, an inhabitant of Cape York, and which I found last year for the first time in New Guinea, also lives in this island, and I saw the young birds, which were not yet able to fly.

May 7th.—There is no change in the weather, and I dare not hope for any for some days to come. The time has, however, passed quickly, and none of us as yet are weary.

The Chinamen have been trying to rival the water-fowl which inhabit this shore, and at low tide give chase to the crabs, and different species of fish among the coral-covered rocks. Bob returned with some fine fish. Where he caught them, he alone knows, and it is not improbable that he bought them from the natives, who came here from the south of the island some days ago, and have been obliged to remain, owing to the bad weather.

The engineer wasted powder and shot in his endeavour to shoot some birds, but, fortunately for them, he almost always missed his aim.

To pass away the time, I prepared the skins of some birds of different species, all of which are, however, found at Cape York.

On the plain behind our tent are numbers of quail, and I shot several of them to-day. The young ones are numerous, and one of them that had flown to the coast I caught with my hand. As soon as I restored it to liberty, it ran away quickly, apparently preferring to trust to its legs rather than to the wings which had led it so much astray.

*May 8th.*—Lord Byron wrote, in 1810,—“To-day in a palace, to-morrow in a stall with cows; to-day with a pasha, to-morrow with a shepherd.” These words of the poet occurred to me forcibly to-day as I looked at my surroundings. I have a tent for a house, with the sand for a bed, and a stone for a pillow—and that is all. My only light is from a smoky lamp. I have around me two sacks of flour, guns, plates, dishes, and some books, the skins of birds recently prepared, and a

hundred other small things necessary in our encampment.

The wind is blowing fiercely, and the sea roars as it dashes on the shore. The noise of the wind rushing through my tent, through the grass, and the leaves of a pandanus-tree, is positively deafening. It is driving the sand into my eyes and ears, and even into my pen, whilst it threatens every minute to extinguish my lamp. It is cold and cloudy, not a star is visible, and nothing but the roaring of the sea and the howling of the wind is to be heard. It is a terrible night, and fears for the safety of the "Neva" have crossed my mind. Oh! how rugged sometimes is the path we pursue in following a profession! and, I may add, we pay dearly for glory. I am alone—that is to say, the Chinamen are in their tent, the engineer and one sailor are keeping watch over the "Neva," and the other two are asleep in the open air, near the trunk of an old tree which they are burning, and which every now and then emits sparks that fantastically illuminate our encampment.

From time to time sea-birds, probably attracted by the flames, flit by like shadows.

*May 9th.*—This morning I sent off a party to Burke Island to seek for turtles' eggs. They went with my best wishes, but I did not feel inclined to accompany them; for, although I am well pleased to have the eggs of this amphibious animal, my love of them is not so great as to induce me to encounter the inconvenience of the journey. They went with the wind astern, but it was against them when returning. They came back late, and without any eggs; but, to compensate for that, they

had killed several birds. I have not yet found any eggs, and I have little hope of doing so for some days to come, as the turtles lay them only at the full moon. In order to pass the time as pleasantly as possible, my men, with the help of the Chinese cook, have invented some novel culinary combinations, and given them names not to be found in any dictionary of their language. For instance, to-day they made me partake of a "sea-pie," composed of birds cut up and pounded, and some paste balls that were so hard that, had they been cooking until the end of time, they would still have been hard, and elastic enough to serve for a game of ball. Still, seasoned with ginger and other spices which Bob had stolen from the Chinese, this "sea-pie" was not unpalatable, and we were all contented with it.

The birds killed were a *sterna*, a plover, a curlew, and a rail.

*May 10th.*—No change in the weather; the sea is still rough; it is cloudy, and threatens rain, which we hope for, as it would calm the wind and the sea. The clouds are flitting swiftly above us, but no rain falls.

We have all become astrologers, and in turn predict storms or calm weather, each explaining his own theory, which is generally received with incredulity by the others. Thus we pass the time.

To-day I have discovered that two different species of quail inhabit this desert coast.

*May 11th.*—We have been prisoners for a week on this barren island. However, we have not been badly off, and the time has passed quickly.



To-day, whilst I was arranging nets for quails, I found the remains of a beautiful beetle (*Trichosternus*), and I was afterwards rewarded for the trouble I had by finding some live specimens. Searching right and left in the grass, I discovered an insect about to enter a small hole. I supposed it was its nest, and, by robbing as many of these holes as I could find, I succeeded in capturing no less than thirteen perfect specimens of this beautiful insect.

*May 12th.*—The weather is getting calm, and the hopes we founded on the new moon are consequently strengthened.

I returned to hunt for the *Trichosternus*, and I found that late in the evening they come out of their hiding-places, when it is not difficult to take a great many of them.

Bob brought two natives of Mount Ernest Island to my tent. One was tall, but the reverse of handsome. His lips were so prominent that the lower one almost hid his chin. His ears were long, and pierced like those of the people of Kataw. The cheek-bones were very prominent, the temples depressed, the skull large and rounded at the top, and the forehead receding. He was an ugly copy of a native of Kataw. The other man was shorter, and had the same characteristics, but less strongly marked. The skins of both were dark, the hair was curled and woolly. The general type was that of the islands of Torres Straits, with the variety observable in the inhabitants of those islands.

*May 13th.*—I find, at the head of the page of my diary, the words, "Old May Day, New Moon."

This is the moon we have been waiting an entire week for, and at last it has come, preceded by a calm night, and this morning we prepared to start, but were not ready in time to take advantage of the tide.

The wind has risen, it is 3 p.m., and we are still uncertain of being able to get away with the change of tide. Everything is on board except my tent, and we are determined to start if the wind does not increase, even if it be night, although that is not the hour I prefer.

## CHAPTER II.

Two large birds—We anchor at Brother's Island—An uninteresting place—One of my Chinamen is stung by a fish—Tawan, or Cornwallis Island—A tea party at Saibay—We enter the Kataw river—Sister Flags—Trade with the natives—Cocoa Palms—"Ogo! Ogo!"—Flying foxes—Defeated hopes—The Ptiloris—My collections—My Celestials are discontented.

TO-DAY the island was visited by two large birds, the *Mycteria Australis* and the *Pandion leucogaster*. I got almost within gunshot of the first, as it was hunting for some small fish which the receding tide had left dry on the shore; but it is difficult to walk barefoot on the coral reefs, and I was unable to reach it in time. I never saw a more beautiful bird than this one, as it appeared to me when it whirled about in the air, preparing for flight. The plumage of black and white formed a perfect cross, terminated at one extremity by red legs, which it stretched out far beyond its body, as is the custom of the Ardeas when they fly. After turning in the air several times, it directed its course towards the north, and disappeared. It may be that it preceded me to New Guinea, I said to myself that I felt envious of its wings, which did not fear the waves or the winds. Man, on the

contrary, with all his genius and his superiority over other creatures, often finds himself impotent against nature.

*May 14th.*—Last night I sent my people on board, and kept but two men and the boat with me on shore, holding ourselves in readiness for starting. I went on board at midnight, hoping that we should bid adieu to Pole Island.

At 3 p.m. it was still calm, and I gave the order to get the engine ready for starting at daybreak. Before the sun had appeared on the horizon, the "Neva" had weighed anchor and was on her way to Brother's Island. The wind was light, but the sea was rough, and caused the vessel to roll disagreeably. At 10 a.m. we cast anchor behind Brother's Island, when the wind rose and again placed our provisions in danger. Every one was pleased to stop here, and none more so than the Chinamen, who had all suffered from sea-sickness.

We went on shore to take in stores of wood and water, but, owing to the low tide, we did not succeed in getting as much of either as we wished. We saw nothing interesting on land, and the few birds I remarked were of Australian species. There were some acacias, and a beautiful *Dendrobium* in flower, but I found no insects.

The weather continues fair, and we hope to be able to leave to-morrow morning, and to reach New Guinea in the course of the day. One of the Chinamen was stung by a poisonous fish in the hand, and is suffering horribly. It was at this place last year that Tiensin, the Chinese cook, was bitten by a venomous serpent. In truth,

this island appears adverse to the sons of the Celestial Empire.

*May 15th.*—Yesterday evening the men returned on board late, bringing but a small provision of wood for the engine, not even sufficient to last until our return to Moatta. We directed our course this evening by the island of Tawan or Cornwallis, which we reached at half-past ten o'clock, and we cast anchor before the little village. Here I immediately sent on land for wood and water.

I found, with regret, that the teachers Elia and Lochat were absent; one of them, having had the fever very badly, had gone to Cape York, the other to Saibay Island. Three of the natives were also ill with fever, and a fourth was laid up with a tumour in his hand. In consequence of the illness of the teachers, we were unable to obtain either bananas, cocoa-nuts, or yams.

The wind, which had risen considerably, made our short journey anything but agreeable. Of course the Chinamen were sea-sick. The "Neva," with the wind astern, behaved very well, although we did not escape some great waves which dashed over everything on board. Where we are at present anchored, we are much exposed to the wind, and, if we are unable to leave to-morrow, it will be advisable to get behind the island. I shall, however, rest contented, for we are in sight of New Guinea.

*May 16th.*—The weather was very bad during the night; this morning it is worse, and we have been obliged to seek shelter behind the island. I sent men in a boat to Saibay to buy fruit from

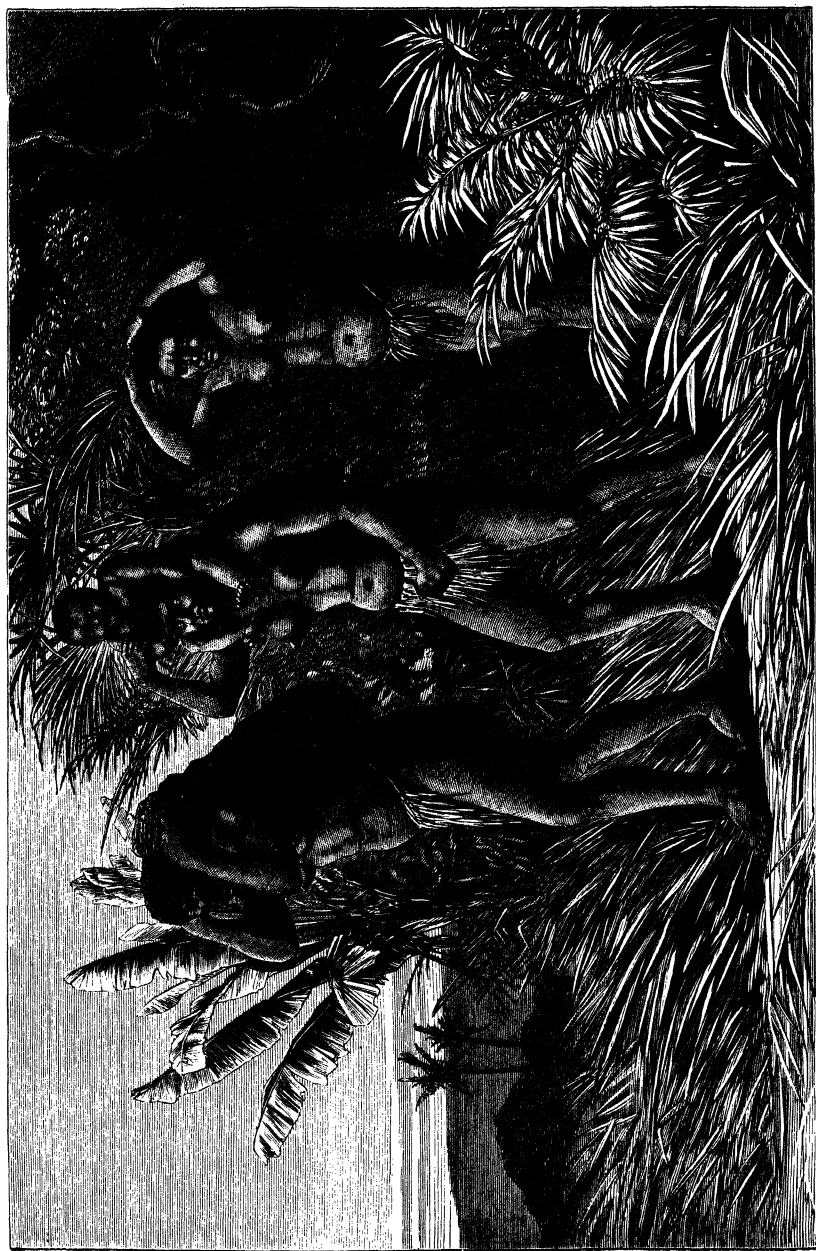
the natives, and they returned with a few bananas and cocoa-nuts. There they found Elia the teacher, who sent me, as a present, a piece of savoury dugong meat. Elia and Lochat were very ill from fever. On Sunday, Elia is to inaugurate a new church in the island of Saibay, and Saturday is appointed for a large tea-party, as a preliminary to the ceremony of the following day. A large tea-party at Saibay! Nobody can deny that the natives are making rapid progress in civilization!

I am told Elia will go to-morrow to New Guinea—that is, to the coast opposite Saibay, to meet a chief from the interior of the country, who wishes to become a Christian. I am told also of a new river which runs into the sea above Saibay.

*May 17th.*—From our anchorage this evening I can see the light of fires in the village of Moatta, on the mouth of the little river Kataw, opposite which we arrived and cast anchor at half-past 2 p.m., being unable to enter it on account of the low tide.

We started from Tawan at 9 a.m. with fine weather and a calm sea; our voyage was very monotonous, we did not see any natives, and had only a distant view of the village of Saibay. We could, however, discern the church which is to be opened next Sunday. At the village of Moatta we saw but few people. Later on I knew that many of the inhabitants were absent, and among them were Maino, Waruki, and Dawan, our pilots of the year before. They are just now, I am told, in the island of Kiwai, so that I shall pro-





WOMEN OF MOATTA COMING FROM THE BUSH.



bably be obliged to sail without a pilot. Now it is 7 p.m., and we are waiting for the high tide in order to enter the river, and make our preparations for starting to-morrow morning.

If navigation in and out of the Kataw with the "Neva" be difficult in daylight, I do not know how we shall manage at night; but at any rate we must try, because it would be impossible to remain where we are if the wind increases. Indeed, I feel the necessity of speedily entering the Fly River, because I see more clearly every day, that I am not born to be a sailor. Fifteen days for a voyage of a hundred miles!

*May 18th.*—At 1 a.m., at high tide, we entered the Kataw. I sent a boat with two men and lights to the most dangerous places, and we succeeded in entering without difficulty. The natives of Ture-ture came early in the morning of the day before our return to the mouth of the river, and they sold us bananas, taro, and cocoanuts in larger quantities than we wanted. We were obliged to refuse a great deal for want of room. Later on the inhabitants came, and my old friends arrived; the barter began and lasted a long time, and I do not know how it would have ended if I had not peremptorily sent the natives ashore. We were not in time to take advantage of the high tide to leave, and so were obliged to remain until the next day. The eldest son of Maino came, accompanied by a dozen other young men and we spent some hours pleasantly together.

The weather seems to be set fair, and we hope to arrive to-morrow at the Fly River.

May 19th.—Last night was so bad that I could not wish such disasters even to my enemies. It began to rain at 9 p.m., and continued the whole night, pouring in torrents. About two o'clock we were obliged to bale out the water, which was more than a foot deep on board, to the great detriment of everything in the vessel. The firewood was wet, and this morning much time was lost before the engine could be started. We sailed, however, just when the tide was ebbing. The sky was overcast, and a cold drizzling rain was falling. The sea at the mouth of the river was rather rough, but outside it was calm enough. In the night the wind, which was light, changed from south-east to north-west. At half-past 12 p.m. we were only half a mile from Parama Island (Bampton); three or four miles more, and we should have been in the river Fly!

But no! Here we are on the sand in four feet of water. We tried to regain the channel, but we could not find our way. Meanwhile, the tide going out, I could not remain on the sand exposed to every turn of the wind, so I returned to Yarru Island in order to try again next day to make our way between Parama and New Guinea. The wind, though light, continues to blow from the north-west, and therefore the sea is quite calm, and we trust that it will continue the same to-morrow.

We made havoc among the fish with dynamite. In the evening several pigeons (*Carpophaga spilorrhoea*), bats (*Pteropus*), and ducks (*Dendrocygna guttata*) passed.

May 20th.—At last we have drunk of the sweet waters of the Fly River, and now we have

cast anchor in a creek of Mibu Island. Last year, in the month of July, we remained here several days, waiting for fine weather to cross the sea which separates us from Kataw. How much the aspect of things is changed by circumstances ! Then it seemed to us the most wretched place in the world, and we regarded it as a prison. To-day we have greeted it as the goal of our journey, and it appears to us almost pretty and picturesque. The weather is beautiful and calm, and so it was in the morning and at night. We set out at half-past six from Yarru, under sail, because the engine was not in working order. Afterwards a light wind arose, and we were obliged to take in sail, and make use of steam. Between Yarru and Parama we did not find any obstacle, and we crossed in four feet and a half of water. From Parama to Mibu we sailed four and five degrees N.N.E. Going out of Parama, we saw under Mibu a wide sand-bank, uncovered at low tide. Between the coast of New Guinea and Mibu, in the middle of the salt water, we found a current of fresh water, which we discovered by its gurgling noise, but we did not find out its source.

*May 21st.*—To-day, for the third time, the Italian flag was hoisted on the Fly River, and for the second time united with the flag of New South Wales. When looking at the flags, I thought of those two countries. I am a son of the first, the second is loved by me as a second fatherland. When I saw the two flags hoisted together, they seemed to me two sisters, and from my heart I desired that the nations

whom they represent should call themselves brethren. I longed that some day bonds might unite the two countries for the benefit of both. I admire New South Wales; it is a young country, full of hope and enthusiasm; its inhabitants, having no past glories to pride themselves upon, aspire to furnish a glorious retrospect to future generations, who, looking back at the great results of the labours of their fathers, will feel themselves urged to prosecute with zeal and faith the work of progress and civilization; and I ventured to hope that Italy, now that new life circulates in her veins, boasting less of past glories, looking rather to the present and the future, and laying aside her political passions, may urge her sons to love and peace, in those ways of true progress which have been pointed out to us by younger nations.

We left Mibu at nine, and arrived in sight of Kiwai at a quarter to ten. We found such a strong current against us that steam and sails were unable to overcome it, and we were obliged to cast anchor at 1 p.m. near Kiwai, waiting the change of tide.

We cast anchor at a short distance from some houses, near which we saw several natives. I beckoned to them to come to us, and, after some hesitation, they came, bringing cocoa-nuts. They were five men whom I knew, and they remembered me. We set to work to collect firewood, and they helped us to carry it on board.

At three o'clock the tide began to rise, and we continued our voyage; passing the villages of Para and Auti without seeing any of the inhabi-

tants, we cast anchor on the east point of Attack Island.

*May 22nd.*—We started this morning with a fresh breeze, under sail, because the engine was not ready, but we had wind and tide in our favour. After a while we observed a canoe with two men, who were following us from the coast of New Guinea, while other canoes rowed along the coast. The men in the first canoe seemed desirous to speak to us, and we lay to in order to communicate with them. At first they seemed timid, but, after a little, encouraged by our cordiality and by the presents we made them, they came on board, and invited us to go to their village, which they said was near—and, indeed, we could see the smoke of the village in the distance. They promised to sell us cocoa-nuts, bananas, and a pig. Although I did not feel very anxious to accompany them, yet, to please my men, who wished to buy fruit, and hoping to acquire the good will of these natives—the same who had come to attack us on board the “Ellangowan”—I gave orders to steer towards the point they indicated, and we shortly afterwards cast anchor some miles off, opposite a great plantation of bananas, and thousands of cocoa-nut-trees. We had not seen a living being on the coast, but, at a signal given by the men on board, the natives suddenly appeared by scores all along the shore. They seemed to spring from underground, or to issue from the trees. They appeared well disposed, and some were seen to hide their arms, consisting of bows and arrows. However, we began to barter, because many other canoes full

of bananas, yams, and cocoa-nuts drew nigh, asking in exchange knives, axes, and handkerchiefs. They accepted, but did not ask for tobacco, and I doubt whether they use it, although it may be had at Kiwai, and many other villages on the Fly. I remarked that, in common with all the natives of New Guinea, they chew clay, and also betel and areca-nut.

Everything proceeded satisfactorily; many exchanges were made; we had got one little pig, and they had promised me another, when I perceived that a man from a canoe had stolen a brass rowlock out of our boat. I called him, but he did not answer. I offered him an axe and a knife on condition that he returned what was useless to him, and very necessary to us; but all was of no avail. I thought it best to let other canoes approach, and to keep one as a hostage for the restitution of the stolen article. Very soon one was rowed close to us, and fastened with a rope to the "Neva." Then I explained again that I wanted restitution of the stolen rowlock, and that I was ready to pay for it with many more useful articles, but I did not succeed in persuading the abstractor. Then I told them I should keep their persons and canoe as hostages. They understood me so well that in a fright they threw themselves into the sea and swam towards the coast, and they certainly would not all have reached it in safety had not a canoe come to their aid. I continued to make signs to them to induce them to return my property. Three canoes and afterwards a fourth came in order to regain the canoe, which was fastened to the "Neva," but they declined to give back

the rowlock. Perhaps they hoped we should leave the canoe at last, because I can scarcely believe they could prefer so useless an object to a good canoe. But they were mistaken, and, in order to give them a good lesson, I took the canoe along with us. The lesson was perhaps too severe, but they ought to reflect that it was well deserved, and that they were the first to commit an act of injustice towards us. The people we saw to-day seemed to me to be of a mixed race, and I observed many different types. They are slightly built, of low stature, and many were suffering from disease of the skin, and swellings in different parts of the body. I remarked that, for the most part, they have short hair, curled and parted in the middle, as it is worn in some of the islands of Torres Straits. In some instances the pupil of the eye was of a yellowish hue. Some wore short beards; the colour of the skin is rather dark, but there are exceptions, and one of them was especially remarkable for his pale complexion. They had no weapons except arrows, and I remarked that they wear grass-woven girdles, as they do at Hall Sound. It would appear that they cultivate the earth well, if we may judge from the plantations of bananas, yams, and many other trees. The cocoa-nut-trees are abundant, and the fruit the finest I have ever seen. We did not see either women or children apparently under the age of eighteen. A little before starting we saw a number of canoes darting about in different directions. Perhaps the natives were going to warn their friends of our approach, and prepare an attack. Judging by the extent and richness

of the plantations, I should say the soil in this region is very fertile.

During our voyage to-day, I have seen the *Mucuna Bennettii* in blossom, and I heard also the charming notes of the *Paradisea Raggiana*. We started at 4 p.m., and, favoured by a strong current, we arrived at nine at Canoe Island.

As we did not know what might happen to us in this place, where we had been attacked by the natives during the voyage in the "Ellangowan," I fired off two rockets.

*May 23rd.*—In order to profit by the high tide, we sailed at 7 a.m., without having seen any of the natives who live on the opposite shore. We very soon arrived at Kate and Walker islands. A little further on we perceived six or seven canoes filled with natives, and we began to think they might attack us. As we approached the place where we had seen them, they disappeared, so that, when we arrived, we only saw a canoe with two men, who, with much gesticulation, shouted, "Ogo! ogo!" I answered, "Ogo! ogo!" which I think signifies "peace, peace." I gave orders to go slowly, that we might see whether they would approach us, and enter into friendly relations as they showed us some bananas. I gave orders to stop the vessel, and beckoned them to approach. They came; gave me some fruit, and accepted some knives. One of them offered me his coronet of cassowary and bird of paradise feathers in return for a red handkerchief. I recognized among them the man who had first come on board the "Ellangowan," and he also recognized me, and shook hands with me in token



of friendship. After this he shouted out, and immediately several canoes issued from a narrow channel, which we had not seen because it was covered by the vegetation. Four canoes came directly to us, and the natives and we exchanged bananas for knives. Other canoes appeared, followed by several more. It was not easy to understand what their object was; it seemed to me that the occupants of the nearest canoes might range themselves in line of battle, and surround us. Apparently the men were not armed, but at the bottom of the canoe I detected bows and arrows covered with water and leaves. When I saw the number of the canoes, increasing to an alarming extent, I ordered steam to be got up. At the noise produced by the working of the screw, the men seemed rather alarmed, and, fearing we might doubt their intentions, they exclaimed, "Ogo! ogo!" We steamed away from them at full speed, leaving them in astonishment. They remained a long time gazing at us, shouting and gesticulating, perhaps to bid us farewell. With the help of the flowing tide, we crossed the distance which last year took us three days. We passed the island of Buceros, and to-day also we saw several of the birds from which the island takes its name. We passed the islands of the Fairfax group, and cast anchor to the south-west of them.

We did not keep to the same route as last year, and we discovered some new islands, which may belong to the same group. It appears to me that here the river forms a lake, which possibly forms a tributary stream whose source has yet to be

discovered. I saw two *Mycteria Australis*, I heard the notes of the *Paradisea Raggiana*, of the *Ptiloris magnificus*, and of *Seleucides alba*. As usual on an island almost destitute of vegetation, thousands and thousands of flying foxes (*Pteropus*) were perched on the trees. I killed two dozen of them with only a few shots. At the noise of the gun and the engine, and hearing the cries of the wounded, a panic took place among these strange inhabitants of the desert shores of the Fly; and, notwithstanding that the trees remained black, and literally covered, a dense mass of these creatures hovered over our heads, with deafening screams. I observed that a great number of females had their little ones attached to their breasts, and it was strange to see them flying with their burdens. Now, while I write, I reflect that one day these remarks may be published, and I fancy I can see a smile of incredulity on the lips of the reader, at my statement of the enormous number of these bats; but I affirm, with perfect seriousness, that I should not exaggerate if I said they might be counted by millions.

Where we are now anchored, the forest is really magnificent, and the trees are gigantic, especially the fig-trees.

Taking advantage of the little daylight that yet remained, we landed to examine the ground, intending to remain here if it answered our purpose. We were not deceived in our expectation, and were fortunate enough to kill a bird of paradise and a fine *Goura Sclaterii*. We also saw the remains of an ancient camp, and many tracks of cassowaries and wild pig. The place looks

fertile, and we shall remain some days to explore it thoroughly, and also to put the "Neva" in order, and increase our comfort a little. Besides, it is necessary to make some repairs to keep us watertight. The weather does not yet seem settled; to-day the wind is blowing on every side, and it rains. Now that the sun has set, I hear the notes of the *talegallus*, *gowra*, and of many other birds unknown to me. A little before I had heard the long and cadenced notes of the *Seleucides*, while the *Paradisea Raggiana* gaily repeated its own note. There are enough birds to make a naturalist happy; how many would rejoice to be with me to-night! they would dream of treasures for the morrow. They would scarcely hesitate about sleeping on a bare plank, in the middle of a river, surrounded perhaps by numerous enemies.

*May 24th.*—The hopes of a sportsman are not always realized, and to-day it has happened that we were not fortunate in finding good sport. We killed two wild pigs—one young, the other very old. I was not able to remain long on shore, because my presence was necessary on board, for I perceive my people do not like hard work, and in my absence the repairs of the "Neva" do not progress satisfactorily. To remain on board when the voices of five species of birds of paradise lure you to land is very hard for an enthusiast. I cannot help feeling regret, and I envy Bob, whose gun I heard making great havoc. In the night the temperature fell considerably, and the thermometer fell to 77° Fahrenheit; during the day it rose to 88°. Sand-flies

and mosquitoes torment us from morning until night.

*May 25th.*—Three of my men went to-day to shoot in the forest, but my expectations were disappointed by the result. They brought only eleven specimens of the kingfisher (*Tanysiptera galatea*), and of these two only were in good condition. I have prepared five *Goura Sclaterii* without being able to obtain a male of this fine new species.

Bob killed two *Dorcopsis*, in which I observe the want of the eye-teeth; those I had seen at Epa always had them. My men also brought a bird of paradise, a *Paradisea Raggiana*, and some *Charpophaga Pinon* and *Talegallus*; but, although beautiful birds, these are too common to interest me much. I went ashore for half an hour, but I did not succeed in catching anything, except a fine *Eupetes* (*E. nigricrisus*), and I observed that the males have not a white line above the eyes, which always exists in the female. Among the insects I found some *longicornis*, and one *Therates*.

*May 26th.*—Last night it rained without ceasing, and continued raining until ten o'clock this morning. Afterwards the sun came out in full splendour, and the thermometer in the shade on board the "Neva" reached 100° Fahrenheit. Perhaps, because we are already accustomed to tropical heat on account of the costume we have adopted, we should scarcely have believed the temperature to be so high, were it not for the thermometer which recorded the fact. My men went out shooting after dinner, but without success, and they brought in only a few common

birds. They tell me, however, stories of fine birds which have been lost, wounded, or killed on the trees. One of them declares that he wounded a large cassowary, and followed the bloody tracks on the ground for a long time, until they disappeared in a place covered by water. In short, it was an unfortunate day for naturalists. I took a young pigeon alive, which seems to be the *Eutrigon terrestris*—a bird remarkable on account of its strong beak, which resembles that of the *Didunculus*. If it really be of the species I suppose, it would prove how birds with strong legs, and not fitted to fly, may conquer the difficulties of migration, which cannot be overcome by birds endowed with greater strength of wing. I have also found this species at Andai, almost at the foot of Mount Arfak.

May 27th.—This morning the men went to shoot, and until twelve the forest resounded with the popping of the guns. At mid-day we met together around a fire made on the shore, on which our dinner was cooking, because for to-day we have camped on land. Those who had been shooting gave an account of their work, and the result was very poor indeed. I have been the only fortunate one, having killed three species of birds of paradise, a young *Paradisea Raggiana*, one *Ptiloris*, and two *Cicinnurus Regius*, perhaps the commonest of all the birds of paradise. It inhabits New Guinea, and also some of the adjacent islands. The *Ptiloris* is a very cautious bird; in the forest it is impossible to approach it or find it. By imitating its note, which consists of three distinct sounds, “oooh, oooh, oooh,” it is, how-

ever, easy to surprise and kill it. Curiosity is the cause of its death. While the sportsman, hidden in a bush, repeats the note, the bird comes and goes to and fro near him, announcing its presence with a peculiar rustling of the wings, which may be compared to the "frou frou" of a silk dress. The poor bird seems to be desperately bent upon discovering who it is that dares to woo its female with its own notes; little by little it draws nearer, and, perched on a neighbouring tree, stretches its neck in every direction, thus giving facility to the sportsman for taking its life.

The *Cicinnurus*, on the contrary, does not seem afraid of man, and we may observe it for a long time flying about from branch to branch, and attaching itself to the creepers which hang from the trees in festoons. I have found to-day, upon a *Pteropus*, an insect which lives on corpses, and which I have found for the first time in New Guinea, and, as far as I know, nobody has ever before discovered it. It belongs to the genus *Silphidæ*, which is known as an element of the Indian fauna. It is more than an inch and a half long; black, with four yellowish spots on the external wings. I also found some *Tricondyla* and some *Longicorns*.

*May 28th.*—We have changed our position, sailing up the river for twenty miles. Now we are anchored at about half a mile from Alligator Island. We did not follow the same route as that of last year, and in this way we discovered some islands which have never previously been seen.

Taking the soundings, we found very little diminution of depth, and we sounded to eighteen

feet, and found the same depth even when almost close to the shore.

The aspect of the country is most beautiful and picturesque all along the river, on account of the variety of vegetation in these little islands. Some of them are covered with lofty trees, overgrown with leaves, and stinging *Calamus*; some are covered with a very poor description of vegetation and timber of a light colour (a species of sandal-wood), full of *Pteropus* which scream fearfully, and emit a most unpleasant odour. Other islands seem to be shut in by a thick wall of aerial roots of a *Pandanus* which hang down to the water's edge. On the side where we are anchored, the timber is not remarkable, but the opposite shore is thickly covered with very tall trees with dark green foliage.

*May 29th.*—To write the history of a day which has got no history is neither pleasant nor easy, and it is especially difficult to begin. When the first step is taken, we can go on to the end of the page; and if the reader find what has been written is neither useful nor amusing, it has nevertheless served to amuse and interest the writer. I must mention that it rained unceasingly the whole night, which was the cause of much trouble to us, and of damage to the rope which fastened the "Neva" to a tree on the bank. The rope was broken, and we ran the risk of being dragged along by the current. Fortunately we repaired it in time. This morning it rained; it still rained at twelve, and had not ceased at half-past four. We could do nothing but grumble under our tents, on account of the smoke which filled them, and work hard to close

the holes through which the water was pouring, notwithstanding all we had been doing for some days before. At last, at five, the rain ceased, and we saw a little sky, though by no means a bright one, because it was all covered with clouds. But we wanted air, so we got into a boat and went fishing with dynamite. We took a quantity of fish for our supper; they were some large cat-fish (*Silurus*), which I found feed upon the fruit of a kind of palm.

*May 30th.*—Yesterday I observed that the tide did not reach this spot, and I thought I was beyond the mark; but this morning it rose higher; therefore I imagine my mistake yesterday is to be attributed to the strong current of the river, swollen by the heavy rain of the night before. I observe that here the tide rises seven or eight feet. Tom killed a fine old cassowary with a bullet, and, lest it might not be quite dead, he shot it again in the back. When I was preparing the skin and skeleton, I found the shots had not reached the bone, owing perhaps to the thick fat. I found in its neck the point of an old arrow covered by a skin like a sheath without any opening.

*May 31st.*—To-day I end the month by registering in the catalogue of my collections a beautiful specimen of the *Paradisea Raggiana*, two *Ptiloris magnificus*, some *Cicinnurus*, and some other fine species of birds, especially of pigeons. I also got a *Cuscus*, which, according to some naturalists, is one of the many varieties presented by the *Cuscus maculatus*; out as I found some of the same description last year on the Fly River and at Kataw,



and in 1875 at Yule Island, and have also seen others from Port Moresby, I consider this to be a new and quite different species. I also obtained some specimens of trailing-plants.

The Chinamen seem discontented; they say they are losing time in searching for insects and plants, and that they would like to go soon to the "golden country." I believe they intend to husband their strength with that object in view. The fact is, they work very little. Ah-sam, who knows how to help me in the preparation of the skins, avowed frankly that he disliked such work, and, to convince me practically, he spoilt some of my best birds. In order to prevent his destroying others, I have declined his assistance henceforth.

## CHAPTER III.

An ominous noise, followed by a brisk attack—A fight—Terror of Tom and the Chinamen—Jack and Bob regard it as rather good fun—A quiet night—We sail once more—Fine forest, but remarkable dearth of fruits and flowers, and consequent scarcity of birds—A savage dance—Defeated hopes—A bad beginning to a week—A wide horizon—A good bag—Monotony—An alarm.

*June 1st.*—Before sunrise, when between sleeping and waking, I thought I heard a noise near the shore, somewhat different from that of a falling branch or the movement of an animal. I got up, and, listening attentively, it seemed to me that some persons were approaching. I ran to the poop to ascertain the cause of the strange noise, and found I was not mistaken. A man from the shore was trying to enter our boat, which was only a few yards distant. All were asleep on board, including the cook, who at that time ought to have been on the watch. I called my men to arms. My call was answered by a terrible cry and a hailstorm of arrows, which were heard, but not seen. I ordered my people to lie flat, and meanwhile I took a gun and fired at the man who was trying to get into the boat. The cries and the savage clamour of the natives showed me they intended to attack us suddenly. On account of the

darkness I was not able to see those on land, but I saw those who were close to the poop of the "Neva." Other canoes were on our left. They meant a well-premeditated attack. Repeating my order to my men to keep themselves out of the way of arrows, I directed Mr. Preston to reload the guns. Fortunately they were all loaded. I began to fire, and continued firing until the aggressor resolved to beat a retreat. Some guns were loaded with shot, and some with bullets; in reloading I made use of shot. I was not able to judge of the effect of my fire, on account of the darkness, but the canoes were in battle array before me, and I knew that many of my shots took effect. In twenty-five minutes our enemies had disappeared up a narrow passage on the opposite shore. Probably the battle had lasted longer than the natives desired, and I think, if they held out for about twenty minutes, it was because they were obliged to re-embark the people whom they had landed. Having counted the empty cartridges, I found that, with my ten central fire double-barrelled guns, I had fired 120 shots. The forest resumed its quiet. The dawn appeared, and the birds here and there began to salute the coming day. On our side we had only one Chinaman wounded. When I gave the order to stoop low, the poor man, by way of obeying, lowered his head indeed, but elevated his posteriors. The arrow which struck him had already spent a great deal of its force in traversing the tent, which was of strong linen; but, nevertheless, it penetrated the flesh an inch and a half. We tried to get the point out, and, although he had broken it, I extracted it easily. The arrow was

of bone, and of the kind which is called poisoned. Lest it might really be so, I made use of a remedy which was perhaps too strong, but it was suggested by the danger of death. I first cleaned the wound thoroughly with cotton wool, wound round a pair of pincers; and afterwards washed it with carbonate of ammonia. The arrow extracted is finely worked, and painted black and red, and they had made use of a kind of cement to solder the pieces. It was like the one we found last year in the Coccoanut village. As such arrows are not used by the people near the sea, I have given up the idea that our enemies are of the tribe of natives with whom we are on friendly terms, but I conclude that they are inhabitants of the interior.

When we examined the "Neva," we found she had been struck by forty-five arrows—seventeen of them in one square foot, just at the spot where I was firing. If they had been aimed only a few inches higher, I should probably not have been able to shoot so long, and I owe to the darkness and my good fortune the fact that I am alive to write the history of that night. An arrow from the land went through the metal plating, making a hole in it like a pistol-shot, and penetrating the planks, which were an inch and a quarter thick. Looking towards the shore where I had sent my shot, we saw it had not been fired in vain. On examination I found a small space where no shot-marks were to be seen, and this space corresponded exactly to the body of a man. As a matter of course on such occasions, the commotion on board was considerable. Tom and the Chinamen, who

had before never been present at a fight, showed signs of terror all day. At the time of the encounter, Jack and Bob considered the whole affair as a pastime; the engine-driver, new as he was to such scenes, and awakened so suddenly by the shouts of alarm and the firing, was rather disconcerted at first, but afterwards became calm, and proceeded to load his gun.

It is now 8 p.m., and I am acting as watch, having taken the wounded man's turn. The day was lost so far as regards my collection, because the men did not shoot. After dinner they went on shore to cut wood, and when they returned, Bob said he had seen three houses at a short distance. I know these houses must be new, because there were none in this region last year, and the country seemed uninhabited. The wounded Chinaman slept all day, which was probably owing to a large glass of good brandy, which I had given him to divert his thoughts from his wound. I hope that arrow was not poisoned; but, if it were, I hope I have acted with sufficient energy and promptitude to avert fatal consequences. I have kept the point of the arrow with which the poor Chinaman was wounded, as a memento of the fray. One side of the arrow is triangular in shape, while the other is hollowed out, to ensure great loss of blood.

This evening I perceived a certain expression of fear on the faces of my men at the approach of night, and, in order to cheer them up, and to intimidate the natives, in case they were meditating a second attack, I sent up some rockets when it was dark, and burned Bengal lights of

different colours. The effect of both was magical, and I think there is no better place for fireworks than a river between two forests. The shower of fire and rockets, reflected in the water seemed magnified, and shone marvellously, set off by the dark hue of the vegetation. The various tints of the Bengal lights changed the colour of the "Neva," and of all surrounding objects.

Amidst the smoke and light of the strange fires, we gesticulated and shouted like madmen, and, if the natives were observing us, they must certainly have believed us to be supernatural beings. However, I think the world progresses so rapidly that the days are over when the savages would take strangers for supernatural beings. Here, instead of coming and paying us homage, they come in the night with the intention of killing us.

The men who went ashore found a bundle of arrows and some bows left by the fugitive warriors, and with the arrows three planks of wood, four or five feet long, having on one side marks of fire, and on the other reddish stains. From these appearances, I conclude that the planks had served as a litter to transport the dead or wounded, and the marks of fire incline me to believe that they had been used for cooking purposes—a surmise strengthened by the traces of grease which we also found on them.

*June 2nd.*—The night passed quietly, notwithstanding the prophecies of my men that we should be again attacked. I did not try to dispel their fears, lest they should neglect to keep watch. For my part, however, I believe that the natives are

quite contented with the lesson they received yesterday, and I hope that they will remember for a long time that it is best to mind one's own business.

We found several more arrows to-day in the "Neva," especially in the poop, which was clearly the chief point aimed at. Perhaps the enemy directed their arrows towards the fire of my guns. I perceive now the great danger I was in, and it is strange indeed that I was not hit by one arrow among so many well aimed.

The lesson of yesterday teaches us that it is not wise to let the hostile canoes approach within bow-shot, but it is necessary to prevent the natives drawing nigh in order to avoid bloodshed on both sides. Unfortunately, yesterday's attack being sudden and in the night, was necessarily bloody, because the natives were discovered only when they were so near that an energetic resistance was demanded. Our wounded man does not present any alarming appearance.

We went again to our daily work, and we shot steadily, getting, among others, some birds of paradise, and a *Cuscus* exactly like that which I recorded some days ago.

*June 3rd.*—We rest to-day, as it is Sunday. The Chinaman passed a very bad night, and this morning was in a high fever. I cannot say whether it is in consequence of the wound or of the climate. I gave him, from time to time, hot tea with brandy, and a few drops of ammonia. When the first period of fever abated, I gave him large doses of quinine at intervals of three hours. This evening he is rather better.

*June 4th.*—This morning we sailed at half-past

eight, bidding farewell, at least for awhile, to the birds and animals. I am anxious to leave the human dwellers on the muddy shores of the Fly River, near Alligator Island. The voyage ended at half-past three, and was rather monotonous on account of the scarcity of birds. We saw thousands of flying foxes, but we had seen so many of these creatures that we now take little interest in them. The forest, though fine, does not present any remarkable features; there is a dearth of any kind of flowers and fruits, and this is the direct cause of the scarcity of birds, especially of those which feed upon insects and fruits.

We had a little excitement at the sight of about thirty natives on the right shore, who, with bows and arrows, were shouting and dancing. When they had finished their savage dance, they stopped and shot off a quantity of arrows; but we were beyond their reach, and I took my precautions. When we were within six or seven hundred yards of them, however, I sent three balls ricocheting over the water, to give them an idea of the superiority of our arms.

I ascertained the existence and the locality of two other islands omitted in the map I made last year, and perhaps others remain to be discovered, also another arm or confluent of the river, and a stream, which, having its source here in the Fly, may possibly continue its course towards the sea. This morning, Bob, before starting, found some stains of blood on the shore; hence I am able to record that the blood of my Chinaman was certainly avenged. He is better to-day than he was



yesterday, and I am in hopes the arrow was not poisoned.

*June 5th.*—The hopes which revived in my heart yesterday at the voice of so many birds of paradise, which saluted the last rays of the sun, disappearing behind clouds of gold and flame colour, faded away, and to-day we did not get any good shooting, either as an addition to my collection, or for the kitchen. The men tell the same stories of wonderful birds, but I have ceased to believe these often-told tales. I found some fine plants and orchids, but the tangle was so dense, and the difficulty of getting through the forest was so great, that it took me about an hour to walk a quarter of a mile.

In the afternoon we had a shower. The night had been extremely cold, and this morning at 6 a.m. the thermometer marked only 68° Fahrenheit. This is the lowest temperature I have yet to record. During the day the highest was 85°.

The Chinaman is getting on well, and I think he is now out of danger. The natives have not since been seen or heard.

*June 6th.*—We did not find the place profitable for our guns, as my men could not shoot because of the thickness of the forest, so we sailed at 3 p.m., and, after sailing ten miles, we anchored nearly opposite to Ellangowan Island. The weather is remarkably fine.

*June 7th.*—To-day I found the *Mucuna Albertisii*, which adorns the top of the trees with a mass of yellow flowers in blossom. It is not, however, so beautiful as the *Mucuna Bennettii*, which last year formed the finest ornament of these forests.

Bob wounded his hand slightly with his gun this morning. He was much frightened, and therefore, in the afternoon, he had an attack of fever. Now he is under the influence of a large dose of quinine.

*June 8th.*—Bob and the Chinaman are both quite well. We had showery weather, and wind from the south-east.

*June 10th.*—During these last few days we added very little to our collection. To-day is Sunday. The weather is cold, and a strong wind makes the vessel roll, which is very unpleasant for those on board. Jack has fever. Three of the ten have had it already.

*June 11th.*—A bad beginning for the week. Little sport, only a crocodile! Tom has fever; four out of ten! Probably this is the effect of the change of weather, and of the frequent rains.

*June 12th.*—The health of the crew is far from being satisfactory. I found a bees' nest in a tree. The little bee is of the same species as those which tormented us so much last year. This kind of bee produces honey almost black; its wax is, on the contrary, of a dark red blood colour. In the nest I found a fine *Carabus*.

*June 13th.*—This morning we sailed at high tide, and therefore hardly felt the current. We sailed below Ellangowan Island, whilst, in the preceding voyage, we had passed above it, and we passed the smaller island in the same way. From 6 a.m. to half-past 5 p.m., we made forty miles, and we cast anchor in one of the most picturesque parts of the Fly, near a junction formed by the river, and a sort of lagoon, which we entered

by a narrow channel. Here there is no forest, and we are in the country of the grass-covered plains, with only a little timber appearing here and there. The river is four or five hundred yards wide, and flows on straight before us for some miles. North-west of us spreads a vast plain covered with herbage. Four or five tall trees, of a peculiar form, cast their shade on the river-shore. From here we enjoy a wide horizon, which seems perhaps the finer because for the last twenty days we have only seen the sky over our heads, the horizon having been hidden by the thickness of the vegetation. The sunset was splendid, and behind the golden clouds it seemed to us that we saw high mountains ; so perfect was the illusion. The weather was fine and calm, and this evening we can clearly hear the noise of the ducks, passing on their way to the distant inner lagoons. We also hear only too plainly the buzzing of mosquitoes, which hum around us hungrily, and threaten that they will hinder us from sleeping to-night. To-day we could not discern the natives' houses where we landed last year. Vegetation has already so much increased as to shut out the houses from view.

*June 14th.*—I think the first settler of the pig family at New Guinea died to-day from the effects of a bullet in the head, received while he was emerging from the mud in which he had probably been digesting his dinner. Poor animal! it was unacquainted with the fire-arms that the "Neva" carries. Its relations of the porcine tribe met their death on board more commonly by knife than by gun. What a beautiful skull the poor

animal had ! What a pity the bullet so spoiled it as to render it impossible to preserve it ! Its skin was so dirty, so covered with old scars, testimonies to its valour, that it was horrible to look at. Its carcass was given to the cook to be preserved in salt, and the head, feet, and other tender parts were instantly put into the pot for supper. But what a disappointment awaited us when supper-time came ! Not even the strong teeth of the semi-cannibals on board could masticate the flesh of that obdurate animal ; it was as hard as stone. Nothing was done to add to my collection of birds. We saw some *Lories*, and some *Trichoglossus*. I found a certain quantity of interesting insects, especially a fine *Carabus*, which I never saw in New Guinea ; an *Eurhynchus* which is, I think, the *Bispinosus*, in which case I should remark that I have seen it before in the north-west and south-east—that is, Naiabui—and now here. For an insect that can hardly walk or fly, its territory may be considered very large.

Bob was in a bad humour to-day, and refused to work. One of the Chinamen told me he had tried to persuade the others to follow his example. As yet I have not succeeded in discovering the cause of his bad temper.

*June 15th.*—To-day my heart beat quickly at the sight of a magnificent insect, which I do not think has yet been classed among those existing in New Guinea. It seems to belong to the genus *Stigmodera*, a very common genus in Australia ; and if I remember rightly, it belongs to a very rare species found in West Australia. It may be described thus :—Length, one inch and a half ;

breadth, half an inch. Head of copper-coloured green; yellow body, with bars of the same colour; yellow wings, with three bars and dark blue spots; under part of the body copper-coloured and streaked; antennæ and feet green.<sup>1</sup> I also discovered some other interesting insects, of which I had found specimens at Naiabui, but which were lost in the shipwreck to which I have already alluded.

*June 16th.*—The aspect of the surrounding country is rather Australian than Papuan, on account of the large extent of land utterly denuded of trees, and covered only with high grass. The land is low and marshy, with small lagoons, and I should think that, during the great rain-falls, they must be to a great extent inundated. The large extent of forest that appeared here and there, does not seem to belong to the really tropical forest, with which it was thought that all the Papuan country was covered. On looking at these partial forests, the traveller is reminded of Australia.

Among the birds I found yesterday and to-day, there were many of Australian species. I remarked the same with regard to the insects.

Bob continues to shirk his own work, and has tried to prevent the others from doing theirs, for some unexplained reason.

*June 13th.*—Not being altogether satisfied with

<sup>1</sup> I have compared this insect with the *Stigmodera Duboulay* kindly lent me by M. Duboulay in Sydney, and I have not found any difference between the two. I believe them to be of the same species. The finding of such an Australian insect here is an important fact.

what I have collected here, I thought of proceeding on my journey, twenty-five or thirty miles up the river.

For about half our voyage the river appeared to be of the same breadth, but after we had passed a large opening which occurs on the right bank, in a north-easterly direction, and which I must confess I do not remember to have observed last year, it becomes much narrower, and runs between two banks covered with grass. I think the opening we saw to-day may be the river Alice, which, after leaving the Fly River at Snack Point, returns here. I intend, on our return, to explore it.

In place of the *Macuna Bennettii*, which, as I have already remarked, last year adorned the banks of this river, there is now a tree in full flower, but not so beautiful. The blossoms are sulphur coloured. Here I saw only aquatic birds, pelicans, ibis, a great number of white ardeas, the *Nictycorax*, *Plotus*, and *Phalacrocorax*. I observed also a little white and black ardea, which I was unable to kill. This is, I think, of an Australian species, and one which I had not found hitherto in New Guinea.

The hornbill and other purely Papuan birds had disappeared, and the note of the birds of paradise no longer tells us that we are in a Papuan country. The landscape is unattractive and desolate, and, instead of the fine dark green of the forest, we see only yellowish grass-lands. We did not see any natives, but could discern the places frequented by them, and at a distance the smoke of their fires. It may seem strange that, on so

large a river, there should be so few crocodiles. For many days we did not see any, and to-day, for the first time, we perceived the nose of one of those animals protruding above the water.

*June 21st.*—Although yesterday I made a tolerably good bag of small birds, *Myagra*, *Rhipidura*, *Todopsis*, *Dicæum*, and other Australian species, I did not consider the locality interesting enough to induce me to spend much time here, and to-day we started at 7 a.m., and soon perceived a distant range of hills, covered with trees. From the smoke we saw, I think the country inhabited.

We passed before the village of the cocoa-trees, where we landed last year, and we saw some natives who fled at our approach. A little farther on, we met a canoe with a man in it. I tried to make him understand that we did not wish to harm him, but in vain. He pushed his canoe with an oar against the current, and made all possible haste to escape from us. After having run about two miles, and probably feeling tired, he left the canoe and disappeared. To-day I observed a large hawk pursued by a great number of white cockatoos, which seemed bent on attacking it. They tried to fight it when from time to time it alighted on a tree. I followed for a long time, observing the scene, to which my attention had been drawn by the hoarse cries of the cockatoos. At last I saw the hawk soaring away with one of its enemies in its deadly grip. The cries of the companions of the victim redoubled, but the hawk did not take any heed of them, and it alighted on a distant tree, where I lost sight of it; probably it

was making a good breakfast. To-day we also saw a huge crocodile, but it rushed into the water before I had time to fire at it.

When we cast anchor, I tried to land, but it was impossible, on account of the pandanus and calamus which choke up the shore. The weather continues to be damp and sunless; the dry season has not yet come. It is 8 p.m., it feels damp and like rain, and we hear the mournful noise of the native drums.

*June 22nd.*—During nine hours we continued our voyage up the river; for nine hours I looked for something to break the monotony of the voyage in this wild country. Last year, how our hopes were raised at the sight of a hill, and sometimes even at the sight of a little vegetation! Then, from mile to mile, we might hope for some variation, for all was unknown. Now we know what we have to look for, and we can feel neither interest nor satisfaction. We passed the place where the natives attacked us last year, but were put to flight by the mere hoisting of our flag and by the whistling of our engine. To-day we did not see any natives. Not far from this place, we stopped for an hour to collect firewood, near a little plantation of sugar-cane and bananas. Now we are anchored near the foot of a hill.

Bob, Jack, and one Chinaman are ill with fever. The wounded man has recovered, and the wound is almost healed up. It rains a little.

*June 23rd.*—Birds are more or less plentiful in proportion to the vegetation. Here is a Papuan forest, and the greater part of the birds are Papuan. Although yesterday I regretted not hearing the



note of the bird of paradise, this morning I heard them greeting the first rays of the sun, which, after a rainy night, appears in a sky covered with thick clouds ; yet the day was not bad, and it rained only in the afternoon.

I gathered some fine plants, among them an orchid in flower, with very sweet perfume. I also found a singular climbing-plant, with white flowers. I remarked that, when its flowers are fading, they assume a bright red tinge ; but what was my astonishment when I saw them change colour before my eyes ! Quite suddenly several fell down while I was plucking them. I looked about for fresh-blown flowers, and gathered them. In less than five minutes, from white they had all turned of the same deep red colour.

The number of birds led me to suppose that the vegetation of this place is very luxuriant. We went up to the summit of a hill about two hundred feet. The forest is thick, but is not very difficult to get through. The notes of the birds of paradise allured us, and we followed their call. We killed two males and one female, of the *Paradisea apoda*, which lives in this latitude, but not in any other. I judge of this by its being unknown to the natives elsewhere.

It is to be observed that we are now in the same latitude as the Arru Islands, which until now were believed to be the only country inhabited by the *Paradisea apoda*. The female has thirteen feathers in the tail, having one in excess of the usual number. I also got a *Ptiloris magnificus*, remarkable for its size, and many other fine birds, but all Papuans.

*June 24th.*—To-day is Sunday, and we are resting. Several birds of paradise, in order, perhaps, to return the visit we made them yesterday, on the top of their hill, came to-day to the trees near the river, and flying from branch to branch, pursued each other, fighting, and making strange noises. They presented an interesting and amusing spectacle. There were males and females. I observed they fed upon small nutmeg-berries.

The sick men are a little better, but Ah-fu had an attack of fever, so five out of the ten have begun to pay tribute to the climate of the country.

*June 27th.*—This locality is very interesting for an ornithologist, and during the last few days I obtained, with the help of my men, a great number of birds, and some interesting species, a few of which are new.

To-day I did not go ashore, but sent my men, and remained on board preparing some of the birds which were killed yesterday. While I was working, I heard some strange voices, and, on looking up, I saw, about three hundred yards away, three canoes with fifteen natives. I was alone on board the "Neva," with the engineer, who was ill, and the cook, the others having gone on shore to shoot, and look for insects.

I made the usual signs of peace, but the natives either did not, or were resolved not to understand, or pay attention to them, and, being armed and ready for war, they seemed about to approach us. I thought it was not prudent to let them come near, either for our sakes or for theirs; for if

they come near enough to hit us with their arrows, I should have been obliged to use the gun. I therefore sent some balls ricochetting over the water not far from the canoes, but still the natives did not understand their danger; and seemed disposed to come on. I then fired several shots over their heads, smashed several branches of the trees, and damaged their trunks. From this the intruders understood that it was dangerous either to approach or to remain where they were, and they resolved to go away, rowing quickly. On hearing my gun, my men understood that danger was impending, and they came back in a great hurry. It was strange to see them hastening to the shore in such haste to embark. I had also a proof of their hurry in the birds they brought, which were all spoiled and good for nothing. The more courageous denied having been afraid, and said the rain had spoiled the feathers of the birds. But the fact was, it had not rained at all, although the weather was not fine.

*June 28th.*—To-day the natives also came twice to disturb our peaceful pursuits. The first time there were fifteen men in three canoes, and they again stopped at the opposite shore, at about three hundred yards from the "Neva." They appear to have less hostile intentions than yesterday, and they began to make long speeches, to which I answered in my own language, making signs to them that, if they wished to come to us in a friendly spirit, they were free to do so.

But they did not choose to understand, and went away by the same route. They returned a short time afterwards with five canoes and

twenty-five or thirty men, and repeated the scene as before. I showed them some handkerchiefs, necklaces, and axes, inviting them to come near, but they answered by exhibiting their bows and arrows. Then I showed them how far a rifle-bullet could reach; this seemed to frighten them a little, and they at once set off. Their arrows did not reach us, nor were they hurt by my bullets. My men who were on shore were naturally glad to come on board, and to have an excuse for remaining idle for the rest of the day.

Among the few birds I have found to-day are some which inhabit the Arru Islands, and were found by S. Muller, at Outanata in the same latitude as these islands, and of this locality. I think I have also obtained a splendid new species of the genus *Aprosmictus*, but I will wait to give a description of it until I procure a better specimen, if fortune deign to bestow it on me. The engineer continues ill, and Ah-ou also. The weather is persistently bad, with continual rain and cold, and little sunshine. The thermometer is at 84° Fahrenheit in the day, and 70° in the night. As we are accustomed to 95°, 84° are only equal to 50° or 55° for us in Europe. Perhaps from the damp, or possibly from other causes, at night we are obliged to double our blankets.

*June 29th.*—Two more must be added to the sick-list to-day, and now only two of my party remain in health. I observe the fever is always accompanied or preceded by bilious attacks. I therefore give emetics first, and quinine afterwards, and the duration of the interval of the

attack is from eighteen to twenty days, during which my sick men eat, drink, and sleep, as if they were quite healthy.

*June 30th.*—Yesterday we saw no canoes, but to-day two came to reconnoitre, following the same tactics as their companions on the previous occasions. The first came alone, the second followed a little after, and each contained six men, armed and ready to fight. They came quietly rowing along the river, then stopped and began to shout. I was busy preparing some skins, and paid no attention to them for a long time; but at length, after having invited them to approach, and perceiving that the men in the first canoe were laying hold of their weapons, I sent a rifle-ball so near the second canoe that they thought it wise to move off; then, aiming at the rear of the departing canoe, I followed them for a distance of about one thousand yards, making the bullets rebound on the water, or whistle above their heads, or strike the trees of the forest. However, I have not as yet wounded a man in any canoe, and this is the fourth time they have come—a proof they do not fear my gun, being unacquainted with its powers.

It is now 8 p.m., and the drums of the natives are heard not far off. It is the first time we have heard them since we arrived here. Is an attack about to be made to-night or to-morrow? Are they beating the drums to collect their forces? It may be that the drums are beaten on account of some feast, but at any rate we cannot sleep securely. I sent off two rockets by way of precaution, and I hope they may have seen them.

## CHAPTER IV.

Our Sunday rest is interrupted—The natives behave with insolence—I retaliate with shot—Our course up the river—Bob kills two little pigs, and I make compensation—A menacing wind—We move off—The natives pursue us—I fire wide of them, but without effect—We cross the river, but are again pursued—We leave our enemies behind—Peaceful hours—Ah-cion—A beautiful bird—Unfriendly natives—Ah-sam—My collections.

*July 1st.*—The month of June began and ended with firing. To-day is the 1st of July, and Sunday, so the forest ought not to re-echo with our guns. I had hoped for quiet, but my hopes were not realized.

The weather was fine, and all on board were enjoying the *dolce far niente*—some smoking, some chatting, and others sleeping. The sun was hot, and everything inclined us to repose. After dinner I was enjoying the pleasure of a good pipe of tobacco at two o'clock, when two canoes with fifteen men appeared to disturb our repose. They came nearer to us than they had done on the previous days, and seemed to desire a parley. I thought they wanted to pass in front of the "Neva," and, having given orders to my people to hide themselves, so that the natives might not find out how many we are, I took up my position.

alone on the poop for more than an hour, and continually signed to them to pass freely. They understood, and allowed the current to carry their canoes in front of the "Neva," keeping themselves



New Guinea Drums.

No. 1, 5, Hall Sound.

No. 2, 3, 4, Fly River.

near the shore. Presently they checked their boats and began to speak again, and I to reply. But they soon went on to make an infernal noise and insulting gestures, and ultimately called on

us to fight them. This scene lasted half an hour, when I again invited them to approach. At last one of them came alone in a canoe into the middle of the river. Meanwhile the others began to prepare their bows and arrows, and to deck their heads with bird of paradise feathers. The man in the middle of the river had allowed himself to drift with the current, and was apparently trying to see as much as he could; but as the men were hidden, he was not able to satisfy his curiosity. He then spoke to his companions, and the rowers with savage yells turned their prows towards us and began to row with all their might, while the others aimed at me with their arrows, shouting and encouraging each other. Probably they thought I was alone on board.

I signed to them to desist and retreat, so soon as I understood their intentions; but they answered me with scornful laughter, shouts, and insults. I did not wish them to come within bow-shot, so I fired my revolver in the air, but they did not appear afraid. I thought the louder noise of the rifle would be more useful, and at the first report they turned their backs; at the second shot they took in the canoe in which sat the solitary man, and therefore there was no danger of anybody being hurt in their hurried flight. I continued, however, to salute them with harmless shots from my rifle, until they were out of reach. This scene is too often repeated to be pleasant; to-day I did my best not to hurt the natives, and fortunately I succeeded, being contented with sending two bullets into the canoe with the solitary man in it; but if they should return, could I hope to be so



fortunate? Will they be so foolish as to try again? I trust they have been sufficiently frightened to-day, and that they will not come any more. When they had gained the shore, a bullet struck a branch above their heads, and broke it; the branch fell into the canoe, and they got entangled in it for some minutes. I am certain that at last they are fully aware of the power of our weapons, and I hope they will not come again among us. They were decorated with large conch shells on the breast and stomach—a proof that directly or indirectly they have intercourse with the people who live on the sea-coast. They wore white necklaces, probably formed of dogs' or crocodiles' teeth. They seemed to be all strong men, and, with one exception, well-shaped and of mature years. Some of them had long beards; probably they were painted; and all save one were black. Among the words I heard, I remarked "Miro" (peace), and "Buruma" (pig). I said to them, in the language of Yule Island, "Do not be afraid," and they seemed to understand, for they approached after I had repeated the words several times. Their canoes are very long and narrow, and they have no rudder.

*July 7th.*—To-day we sailed up the river for twelve hours, and, the current being slow, we reckon to have gone only about sixty miles. We saw neither natives nor strange birds. The forest, however, is very fine, and let us hope it may be rich in game; I do not, however, intend to remain here, but after my men have rested to-morrow will resume our voyage, hoping to find the country interesting.

*July 9th.*—We sailed at 7 a.m., and cast anchor at 6 p.m. To-day's voyage was not without its events and troubles. We were obliged to set off with but little firewood, as the men did not find any worth taking where we cast anchor on Saturday, and we started with the intention of stopping to provide ourselves with that important article as soon as we could. We therefore landed near some deserted houses, where we observed a quantity of cut dry timber lying about. Bob, being on land, killed two little pigs, but as they were so near the houses, I suppose they must belong to the natives, and by way of compensation I left them two dozen knives, six handkerchiefs, and several yards of cotton cloth. Shortly afterwards we saw a man in a canoe, who fled before us, and when his strength was exhausted, took to the shore, leaving his canoe.

We found a fine fish in it, which I took, leaving instead half a dozen knives and two bottles. About 4 p.m. we saw some canoes crossing the river ahead of us, and presently others followed them from the right to the left coast. The whole number we made out to be nine canoes. When we arrived opposite the place at which the canoes had stopped, we saw a throng of people, some in canoes, of which there were nineteen, and some on land in front of a large house. The crowd included several women, who were readily recognized by the grass petticoats they wear. The men were painted black, red, and yellow. They were all making a hideous noise, the women especially; it may be they were endeavouring to inspire the men with courage to

fight. There were in all between four and five hundred people. We saw women jumping and gesticulating as if they were mad, twisting their bodies into horrible contortions. I could not make out what their gestures might signify. The men waved their weapons; some had bows and arrows, some bludgeons, and some stone clubs. They all seemed to be in a furious rage. Presently they recommenced a war-dance, moving in perfect time, now to the right, now to the left, brandishing their weapons aloft. There were canoes also on the right bank. We kept in the middle of the river, out of the reach of their arrows, and passed on in silence, the men keeping out of sight, as our number is by no means imposing. My men, except Bob, Jack, and Tom, to whom I had given the gun, had orders to lie down at the bottom of the "Neva" to avoid the danger of being wounded uselessly; they were, however, armed with axes to defend themselves in case of the natives boarding the "Neva." Tom was at the helm, and I posted myself near him; Bob and Jack were at the prow with directions not to fire without my orders; so we passed on in silence. No noise was to be heard; no person was to be seen except myself. I was standing behind the steersman, in order to see clearly in front as well as around me. It was all the same, to move on or retreat, because we were in the middle—nay, there was more to hope for in advancing than retreating, for the natives, assisted by the current, would have followed us; by our moving onwards, they had the current against them.

Hundreds of arrows were let fly at us, but

they did not reach us. We went on in silence; but I saw that the savages misinterpreted our silence, imputing it to fear. They jumped into the canoes and followed us; so I broke the silence with my rifle, firing into the canoes over the heads of those on shore, trying thus to frighten them, and prevent their pursuing us. By this means I hoped to avoid the necessity of doing them bodily harm. However, seeing that no bad effects were produced by their shots, they continued to pursue us while, little by little, all the canoes were filled with people, following each other. One man, in a canoe by himself, seemed to direct all, and to be the chief of the expedition. He soon left the others behind, and not only followed the "Neva," but at every moment drew nearer to us, and soon came within bow-shot. Skilfully managing his canoe with extraordinary coolness, he stopped and let fly three arrows in succession, which passed over my head and that of the steersman. I answered by three bullets—two aimed at his canoe, which perhaps did not reach it, and the third whilst he was tightening the string of his bow for the fourth arrow. The bow and arrow fell from his hand. My men say the ball struck him in the arm. This may or may not be the case; at any rate, neither he nor the others pursued us any more.

Thus we crossed, but our misfortunes were not yet over. We had no more firewood on board, and we were obliged not only to slacken speed, but to stop after a couple of miles in order to supply ourselves with fuel, so that before evening we might get a little farther from these good people and

pass the night in peace. Whilst the men were on shore getting wood, the natives followed us again in four canoes. I fired some shots at them, and sent up two rockets with dynamite, and this stopped them. As soon as we had taken in wood, we weighed anchor. Having gone some miles, and thinking we had left our enemies far behind, we were preparing to anchor for the night when we discovered another village, and eleven canoes on the shore. We did not see any natives, indeed, but we still thought it prudent to seek a more secure anchorage.

All is silent around us, the night is dark, and no stars are to be seen. I have doubled the watch, but I now think that was an unnecessary precaution, for every one on board is much too frightened to sleep. This will be the first night since the 1st of June that I shall be able to sleep peacefully, for I shall not be compelled to start up every moment to see whether the watch is vigilant or not, which, until now, I have been obliged to do every night.

*July 10th.*—The night passed quietly, and this morning, going about a mile further on to get wood, we were surprised to find that we had slept not far from a village, which we had not seen last night on account of the darkness. When we landed, we found the village had been long ago deserted. We have procured firewood; but, as there are too many sick on board, I allowed the men to rest, and probably we shall leave to-morrow.

*July 11th.*—We cannot start to-day, because Jack is unable to work, having a sore leg; Bob

is an invalid, and the engineer is suffering from a bilious attack; the Chinamen are all more or less ill, and I am threatened with an attack of rheumatism, from which complaint I suffered much last year, just at this season.

*July 12th.*—We sailed for twelve hours and a half, without anything of an interesting nature occurring. I saw nothing worthy of remark except a tree of a common species on the bank of the river in such full flower that it looked like an enormous nosegay. The ground all round the tree was thickly covered with its blossoms. Among the many beautiful *Eugenias* I have seen, I never yet beheld anything as fine as this.

The depth of the river is nearly two fathoms less than it was last year, and here and there muddy banks are to be seen, which we did not then observe. In the middle, the depth varies from five to seven yards.

Bob is very ill, but the other men are better.

*July 14th.*—To-day I killed a splendid *Seleucides alba* while it was uttering its mournful notes from the top of a tree. This bird is difficult to kill, as it is very suspicious; but when the tree which it inhabits is discovered, it is not difficult, because it always returns there, and remains for hours.

Ah-cion did not come on board, either to dine or sup, and it is now 9 p.m., and nobody knows what has become of him. I am ignorant of his whereabouts. Is he lost, or has he been taken by the natives? Thinking he might have lost his way, we sent up some rockets, and fired a gun

frequently, but in vain ; then, with some dynamite shut up in a tin box, we made an explosion which caused the forest to shake. If he is alive, he must have heard it. Jack had another attack of fever ; Bob is getting better. I am not well, and my arms have shrunk an inch in three days. The weather, however, is drier, and I hope we shall all feel better soon.

*July 15th.*—About 7 a.m., I sent the men ashore in search of Ah-cion, and until half-past three I remained in a state of anxiety, without hearing any tidings of him or them. Fearing something serious might have happened to all, I gave the signal for returning on board, by exploding some dynamite. Another anxious half-hour elapsed before I heard two gun-shots, which announced to me that at least some of my men were alive. After a little more suspense, I heard the voices of the three returning, and announcing that Ah-cion was not to be found. Where was he ? Very shortly afterwards he appeared on the shore at two or three hundred yards from the “Neva.” At last I breathed freely. When on board, he related his adventures ; but he is a Chinaman, and I do not believe him. He says he was pursued for a long time by the natives, that he succeeded in escaping from them, that he walked the whole night ; but this account is not worthy of credit. A poor Chinaman, accustomed only to walk in the streets of Canton and Macao, could scarcely have escaped had he been pursued by the natives of this land, who are swift of foot, and as well acquainted with the forest as the beasts which inhabit it. That he was able to walk the whole night in

a forest, in the dark, I can neither imagine nor believe. However, I am very glad of his return. The locality seems pleasant, and birds of paradise are abundant, probably on account of the Pandanus, upon the fruit of which all the fine species of birds of paradise feed.

I may say the *Seleucides* is common here, and it is not difficult to get at, if we discover a Pandanus bearing fruit.

I do not think it out of place to observe that, according to my observations, this bird is chiefly frugivorous. Having examined more than fifty of them, including both males and females of all ages, I found a small lizard in the stomach of only one, and I know that Doctor Beccari only once found a frog in the stomach of one; therefore we may conclude that the *Seleucides* is chiefly frugivorous, although, as an exception, it may sometimes add a little meat to its customary diet. Until now I have found no remains of insects in the stomach.

This species is one of the best known, therefore it is perhaps of less scientific interest; but its beauty ought to win for it a high place among the feathered tribes; and, perhaps after the *Astrapia*, the *Epimacus speciosus*, and the *Epimacus Elliottii*, it is the finest of the birds of paradise. The *Diphyllodes*, the *Lophorina*, and especially *Parotia searpennis*, claim our admiration for their colour and for the special favours bestowed on them by Nature, which fashioned their feathers in the strangest manner. But even among them the *Seleucides* may pride itself on account of its plumage, and



the singular shape of twelve of its feathers, six of which, on each side of the breast, diminish into twelve very thin black threads, terminating in a white point. The softness of the feathers of the back makes it very delicate to the touch, like black velvet; and in a strong light, the colour of the shield-like feathers on the breast changes from green to bronze and a splendid purple. The bird is so gorgeous that it is perhaps not surpassed by any other of the feathered tribe. The long feathers which cover the lower part of its body are of a very delicate yellow colour, which, shaded off into white, are of a deeper colour on the sides. Its beautiful red eyes shine like rubies on black velvet. I remarked that the young ones have eyes of a light brown; when older, they turn yellow; and they are red when the bird has arrived at maturity. Nature, no doubt for a wise purpose, has bestowed on this bird very ugly legs and feet; the thighs are naked, the legs and the feet badly shaped, and of a harsh red colour. I observe that the tail of the female and the young males is long in proportion to the body, and that the male, when fully matured, has a short tail, less than half the length of those of the female and of the young birds.

*July 17th.*—In the afternoon, when we were all on board, we heard voices on the left bank. Presently we saw natives—at first one, then two or three, and a great number who passed behind the bushes on the bank and approached the “Neva.” One came boldly to the edge, out of the forest, and seemed, by his voice and gestures, to wish to attract our attention. We all hid, the

better to observe their movements. The natives were so well covered that not one was visible except the man who was speaking. We observed they had halted near the trunks of some trees, and in thick brushwood. Seeing they did not move, I came forward, and began to make the usual signals of peace. The man on the shore then spoke with his companions, and seemed to point me out to them, and I now saw some bows and arrows aimed at me. I stepped back to get a gun, and came again out of the tent. A discharge of arrows saluted me, but they fell short of the vessel into the water, and the stream carried them away. I answered with two shots, and the natives fled away, howling and beating their drums. They came to injure us, and they themselves got the worst of it. I could not tell whether the shots struck them, but, even if they did, they were not much hurt. I suppose they fled away frightened by the noise. There were about eighty or a hundred men, but, judging by the voices a little in the background, there must have been women and children also.

I cannot understand why they attack us. We are far from their dwellings; in the forest we have not yet found their tracks; we have not heard their drums, and we have seen no smoke; hence, no doubt, their village is very distant. Why do they come, and, refusing the tokens of friendship, seem anxious to kill us? I would be friendly, not only from humane, but also from interested motives, for experience has taught me how useful the natives are in assisting a naturalist to form his collections.

How many treasures I might have obtained from these people, which will now remain unknown for many years! What an advantage it would be for the natives to appreciate us, and to understand how many benefits they might derive from our acquaintance! But no, they come with the intention of killing us, perhaps that they may adorn their houses with our heads, and make ornaments for their women with our jaw-bones, and perhaps they even desire our flesh for roast meat! Their visits are a great annoyance to me. My men, who have no desire to work, with the excuse of perpetual fear of the natives to offer for their idleness, do not work at all. I hope sincerely that they may not visit us again, as I am afraid I may be forced to wound them, and that they may have bitterly to repent their temerity. Ah-sam is very ill to-day, and shows all the symptoms of poison. Although he denies it, I believe he has eaten some poisonous fruits.

*July 18th.*—The men went shooting on the right bank; I thought it would be imprudent to send them on the left, for fear of the natives.

Ah-sam is suffering intense pain, and now acknowledges that he did eat some strange fruit. This is a new form of illness which I have to cure.

*July 19th.*—The engineer, Tom, and a Chinaman went on shore this morning on the right bank, according to my orders. I remained on board with the invalids, Jack, and two Chinamen. Bob, having had a dispute with Tom, did not wish to go with him, and, unknown to me, he landed on the left bank.

All went well until half-past eleven, when I heard the voices of the natives as if they were very near the "Neva." It was a terrible moment for me when Jack informed me that Bob had landed on that side, and, the dinner-hour being near, he would not be far off. I suddenly heard a gunshot, which made me start. It was Bob, who had fired very near us, and evidently from the place whence the voices had come. I only heard one shot. Bob was perhaps surrounded, perhaps wounded, perhaps even dead! I immediately fired several times right and left into the bushes to force the natives to retire, calling Bob meanwhile by name. He answered me, "All right, I have killed a man!" Meanwhile, from the other bank, the boat I had called was hastening to release Bob from the dangers in which he was placed. The cries of the natives changed into savage howls, but apparently they were retiring. The boat arrived and took Bob, then returned to the other bank for Tom, who had remained on shore.

During all this time, I heard repeated lamentations on the left, and I began to think Bob must have wounded somebody severely. The cries of the natives now ceased, but, as we still continued to hear the groans of the wounded man, I concluded his friends must have abandoned him. After our dinner—that is, about two o'clock—everything was quiet; even the groans had ceased; so I thought either that the man had died, or the natives had carried him off in silence. I wished, however, to land, and see with my own eyes; so I took Bob

and Tom with me. Bob brought me to the place where, seeing himself surrounded by natives, he had fired at the first man he met.

At the foot of a large *Megapodius* a man was lying dead. He had his bow and several arrows behind his head, another arrow was still grasped in his hand. His body was almost naked. He was a young man ; his chin and his upper lip were covered with hair, the cheeks with a slight coating of down. He was of small stature, but well proportioned ; his cheek slightly tinged with red ; his features well formed and regular. His nose was pierced twice, one hole above the other. I never saw this kind of piercing among the savages of New Guinea. His ears were large, but not out of proportion ; one of them was torn. His teeth were perfectly black, the result of chewing betel-nut. His eyes were brown. His hair, which must have been long, was divided into little locks, tied together very tightly, with pieces of bark, in such a manner as to look like long strings. I had not seen any similar head-gear in New Guinea. He and his head-gear reminded me of the Furies. He still lay in the same spot where his friends had left him, and where Bob had killed him in self-defence. If his friends do not return to take away his body, it will remain as food for worms. Should they return, they will perceive our guns are weapons not to be despised, and they will learn to moderate their desires for the heads of strangers. But, meanwhile, I shall preserve this man's head in spirits, for Bob, in remembrance of his younger days, did not hesitate to cut it off the poor savage's body.

My earnest prayer and desire is that what has happened to-day may never occur again while I live. I would to God it had never taken place. But I am a fatalist, and I believe that what is destined cannot be averted. We have been the instruments of fate, and we know not why we are made use of in this particular manner.



We did not go in search of the natives. They hid themselves behind the trunks of trees in wait for us. Bob was on the alert to pay them off for what they had attempted to do to us. He who governs all, has His own wise ends in permitting all that has happened, and it is only for us to be resigned to His will.

*July 20th*—To-day passed quietly. The natives were neither seen nor heard. I sent the men to cut wood on the right bank, as I intend to depart as soon as possible from this place, which I loathe since yesterday's tragedy. Ah-sam is not in good health, notwithstanding all I have done for him, having neglected nothing which circumstances permitted, and which my knowledge of medicine suggested. I am not at all certain I can cure him, and the poor man suffers intensely. His pulse varied between forty-five and fifty per minute this morning. This evening, however, there is a change for the better.

*July 21st*.—At half-past seven o'clock the "Neva" made preparations for departure, and I bade adieu with a heavy heart to a country so rich in birds of paradise. But it was a relief to quit the scene of a very melancholy drama.

We did not stop until three o'clock. The *Eugenia* tree, which has been mentioned before, abounds on both sides of the river. We saw to-day, for the first time, fine ferns in groups at the foot of the hills. These growths render the landscape very picturesque.

We passed Snake Point, and were very much distressed at seeing the Alice reduced to the smallest proportions. The north-west branch, which falls into the Fly, is diminished by at least two-thirds of its width, and its bed is to a great extent dried up, and full of sand and mud. This mud perhaps hides the metal which may one day change New Guinea into a civilized country. The south-east branch, which naturally receives the waters of the Fly, is reduced to a width of

only fifteen or twenty feet, and the Fly itself has its waters greatly reduced. The banks are from ten to fifteen feet above its level. Last year they were only a few feet. The lead always recorded from one to two fathoms. If this drought continues, I shall not be able to travel as far as I went last year, and this would be a terrible obstacle to my plans. However, better this than that, if we had advanced further up; where we stuck last year during the raining season, now in the driest season we should find ourselves in great trouble and danger.

We have, it appears, arrived in a locality where the *P. apoda* is very common. In the branches of a tree by the river side, we saw several of this species of bird, and shot two of them.

*July 25th.*—The last few days have been uneventful. The health of the crew improved, and the sport continued, if not good, at least satisfactory. Ah-sam is much better, and out of danger.

Tom states that he has seen native women fishing in a creek, but it appears incredible that natives, and especially women, should come fishing quietly not far from us when the forest has resounded for three days with the "crack, crack" of our guns. However, as we wished to avoid disagreeable encounters, we intend to leave this place to-morrow.

*July 26th.*—The engineer being ill to-day, I had to take his place at the engine, and we started about twelve o'clock in hopes of arriving at some hills which I had found last year rich in plants and animals. But we had not proceeded more than fifteen miles when we were unexpectedly



obliged to stop, owing to the shallowness of the water. We were almost aground, and it was with the greatest difficulty that we got into a place of safety. It was fortunate that I was at the engine myself, and could manœuvre the vessel myself without the fear that my orders might be misunderstood or ill-executed. We succeeded without any accident, and cast anchor in a fathom and a half of water. As soon as we took soundings, we discovered that a sand-bank barred the way across the whole width of the river, which was only three feet deep at this point. We found, however, beyond this spot eleven fathoms, and afterwards three and five.

This bank was perhaps only formed since our last visit, and very probably the first flood will take it away. The wide and deep hole of eleven fathoms is a wonder to me, and I cannot understand how it has been formed.

*July 31st.*—Although the forest is fine, the collection of birds in the last few days has not increased. We have obtained some magnificent specimens of *Cetonids* and other splendid *Coleoptera*. The country is mountainous. No natives have been seen or heard; on land, however, I found some huts very ingeniously built around the trunks of trees, so as to imitate their form, and of large leaves and branches. They are evidently used as a shelter by the natives while lying in wait for pigs and cassowaries. The end of another month has come, and if I look back at what I have done, I cannot congratulate myself on my success. The men, partly from want of good will, and partly from fear of the natives, and also from illness, not

only do little or nothing, but, on account of their frequent disputes and insubordination, are getting on anything but well. When they go shooting, they bring back the least they can, to persuade me there is nothing to do, and it would be better to go back, which now would be impossible, as it would be dangerous to cross the sea from the mouth of the Fly to Somerset in the "Neva," during this monsoon, and it would not be wise to go to Mibu, where there is neither sport nor water, and where natives are numerous. The weather is now drier, and the waters of the river are diminishing every day.

It is fortunate that we had not gone higher up the river, otherwise we should now be on the sand, just as if we were in a dry dock.

## CHAPTER V.

My own illness—Cassowaries—A fine specimen of the *P. apoda*—*Gracula Robertsonii*—A hybrid species—Hawks—Ah-chong disappears—The death of Ah-tong—Many and pressing anxieties—We are in a dangerous position in the river—“Break-axe tree”—I procure some rare and beautiful specimens—The river banks—The Chinamen forsake us—A critical situation.

*August 1st.*—The waters are diminishing so quickly that I am obliged to go back, lest we remain on the sand, and to-day we descended the river for five or six miles, so as to be able to anchor in at least six feet of water.

The month begins badly. The Chinamen do not like to work—that is, to look for insects or to gather plants. Jack says he is ill, but he eats, drinks, and smokes the whole day. Bob and Tom go shooting when they like. As for me, I am disabled by pains in my joints, and I do not know whether they are caused by rheumatism, or by the use of arsenic, in which my fingers are constantly steeped.

*August 11th.*—Summing up the history of these recent days, I may say I also had an attack of fever, but I do not think it was caused by the climate. My men have also suffered more or less from fever; the engineer especially is very poorly.

Neither by rewards nor punishments can I induce my people to work. The Chinaman frequently do not come on board. They find fish in the creeks, fruits and cassowaries' eggs in the forest, and they prefer to remain on land. When they come back, they pretend they lost their way in the forest. However, I got some very interesting new species of *Lucanides* and *Cetonids*. Among the birds I found the young and females of a fine species of kingfisher, the *Cyanalcyon stictolaema*, and the *Xanthomelus aureus*; the most important of all is a male bird of paradise, which seems to be the *P. Raggiana*, but there is some difference in the yellowish colour of the long feathers on its sides; therefore I imagine it may be a mongrel of the two species, which live in these forests, the *P. apoda* and *P. Raggiana*. The affinity between these two species is remarkable, and it is frequently difficult to distinguish between the young birds. Besides the difference in the colour of the above mentioned bird, I observe also that the eyes, instead of being of a fine bright yellow, as they are in the *Raggiana*, are greenish as in the *apoda*. After six weeks of fine weather, we had a little rain to-day.

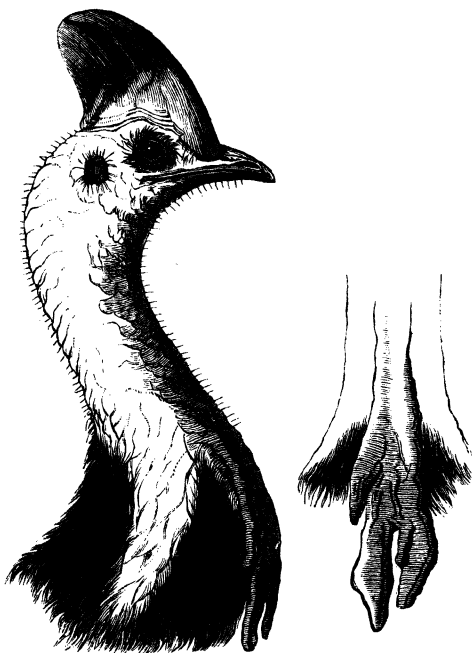
*August 18th.*—The waters continue to decrease every day, and we were again obliged to sail farther down the river to avoid the danger of running aground. We anchored before a stream, where we saw three gowras looking quietly about for fruits. Having sent the men on shore, the forest very soon resounded with the noise of our guns, and the three gowras which we had admired so much, walking on the banks of the stream,

were lying a little while after on board the "Neva," under my knife. I felt a sense of remorse, and that it is cruelty to destroy such innocent creatures, and such fine productions of Nature. But it was their fate, and I question no farther.

Meanwhile, Bob appeared on the opposite bank, asking for four men to help him carry an enormous cassowary which he had killed. All my meditations on the subject of the poor gowras were suddenly stopped. The cassowary was brought on board by the help of four Chinamen, and not without great trouble, owing to its enormous size. Bob went again into the forest, and reappeared with another cassowary, the young one of the first. There was enough work to do on board, and sufficient to make us merry for some days, and I summoned everybody on board. Jack brought a bird of paradise quite equal to that which I spoke of a few days ago, and which I consider hybrid.

I obtained some fine *Lucanides* and a very fine reptile, like one I found last year on the river Kataw (*Elania Mullerii*). The week that had begun badly ended well. All things considered, I cannot complain, for, besides a fair number of interesting birds, I obtained three cassowaries, some very interesting specimens of the *Paradisea Raggiana* and *apoda*, and some others, which, differing in their characteristics, makes me feel certain that hybrids of the two species may exist. If with a greater number of the two kinds, and of those which I supposed to be hybrids, I can prove this fact, the discovery of it would be more interesting than if I had found a new species.

This week I have decidedly found a specimen of the *apoda*, although it has the small wing feathers tinged with yellow, similar to the *Raggiana*, although not so decided in colour. It has, under the green of the throat, a light ring of the yellow, which is so marked in the *Raggiana*. Comparing this specimen with the *Raggiana* I



Casuarius Beccarii.

was in doubt about, I discovered so many points of similarity between them that I feel almost justified in concluding that both in different degrees were hybrids of the two species, the *Raggiana* and the *apoda*. Among the species of the *apoda* I have found some which had a yellowish tinge at the back of the throat, a charac-

teristic of the *Raggiana*, although wanting in some. I purpose making farther comparison, if I am fortunate enough to find other specimens.

*August 29th.*—Last week commenced unfortunately, and finished badly. The collection of insects was especially insignificant, owing to the negligence and unwillingness of my men.

I obtained some fine *Lucanids*, and among them a *Cyclommatus*, which resembles the *Cyclommatus Magaritæ*, from which it, however, appears to me to be distinct.

Among the birds I obtained a very fine parrot, one of the finest and certainly the most beautiful of the genus *Cyclopsittacus*. I think it is a male, full grown, of the *C. cervicalis* of Salvadori, because the female and young ones correspond with the description of this species, whilst the adult males are quite different. The varieties presented by this bird are so numerous that I am not surprised at their being described as of different species. However, there is no doubt that all I have collected belong to one species, because I have killed them while they were entering and coming out by the same hole of a dry tree, where I believe they build their nests in common. I have found all the females with matured eggs. The young birds are distinguished by a blue line under the nape of the neck, which changes, according to age, from dark blue to azure. The males are known by a rust-coloured band on the breast. A *gracula*, which might be the *anais*, and which I thought last year might be a new species (I called it *Gracula Robertsonii*), becomes common, and I got many of them.

This bird is to be seen in couples, but I never saw more than two together; when one of the two is killed, the other is also easily killed, because it either will not leave its companion, or soon returns to the place where it lost its mate. This bird presents many individual varieties, and, in thirty of them, it may safely be said there are not three quite alike. It is not so noisy a bird as the *Gracula Dumontii*, and its note may be compared to the sound of the word "ghee." In the shallow creeks, the *Ceix azura*, the *C. pusilla*, and the *C. solitaria* abound, and I also got there a complete series of the magnificent *Cyanalcyon stictoluema*.

The state of the ovarium in almost all the female birds I obtained led me to believe this is the building season. I found mature eggs in the *Seleucides* and *Paradisea apoda*, in the *Gracula Robertsonii*, in the *Cyclopsittacus*, and in the pigeons. The *Seleucides* are becoming rarer now; we hardly ever hear its note. The note of the *Apoda* is now heard early in the morning and late in the evening. Fifteen days ago, we heard it the whole day long. The kingfisher seems to make its nest a little sooner, for we have found the young ones beginning to put on the plumage of the adults. The weather continues fine and dry. The barometrical variations are trifling; we have, however, some increase of temperature, and the medium of the day varies between 90° and 95° maximum, 80° and 85° minimum, in the day, and 70° at night. The river continues to decrease, and we were obliged to descend another mile.

August 31st.—Another month has sped rapidly



away. If my daily record did not make the fact quite certain, I could not believe that to-morrow will be the 1st of September. It seems to me that in no place, at no epoch of my life, has time flown so quickly as in the midst of these forests. It is more than a month to-day since I have seen the face of a man except those of my companions—a month since we have been alone in these solitudes, and seen only some old path, some old roof in the forest. These inform us that, at some time in the year, men more or less like ourselves come here and stay as long as they think fit, just as we are doing now; but who those men are, whence they come, and where they dwell, remains a mystery to us, and will probably remain so for a long time to come.

Alone, in an uninhabited part of the world, they live, free as the forest hawks; perhaps they are happy—perhaps slaves of a tyrant who is richer and stronger than they; perhaps unhappy and poor, because slaves at least to the necessities of life, obliged to labour that they may eat the fruits of the earth and the beasts of the forest. Are they happy? Probably they love—certainly they hate; then can they possess neither happiness nor repose. A neighbouring tribe wants their heads for trophies, and their bodies for food; they cannot be at peace; they may be men to-day, but to-morrow they may be merely prey for a stronger and more agile enemy. In short, they are men, and therefore cannot be happy. When I reflect thus upon their lot, I feel less the trials of

my own life. Week after week and month after month pass without any sensible improvement. The men continue to neglect their duty, they take no care of themselves, and therefore fall ill very often. I got some specimens of the *Paradisea*, which I imagine may represent the hybrid of the *P. apoda* and *Raggiana*. Indeed, I begin to regard the union of the two species as almost an established fact, from the frequency with which I have found them, and in places so distant from each other.

I obtained some beautiful hawks, among which are the splendid *Henicopernis longicaudatus*. I observe that this bird feeds upon bees, and in the stomach of one specimen I found a bat (*rhinophilus*). Among the reptiles I discovered a very beautiful specimen of the *Elania Mullerii*, of large size, and with well-marked colours. I also obtained some other species of lizards, a *Scincus*, and a tortoise. Although the insects continue to be scarce, I found some fine species of *Lucanides* and *Cetonis*, and some very beautiful *Chrysomelids*, especially of the genus *Æsernia*.

*September 1st.*—If these pages of my journal ever see the light, my reader may perhaps grow weary of this description of monotony. The month and week begin and end badly to-day, and I, dear reader, am more weary than you; but is it my fault that I am obliged to repeat the same old story? I am in great anxiety about Ah-chong and Ah-sam, who did not return on board to-night. Have they fallen into the hands of the natives? Who can say? For fear they might be lost, I fired several times, and sent off rockets,

but in vain. The whole night I shall be tormented with anxiety, while they, perhaps, are sleeping and smoking quietly not far from the "Neva."

*September 3rd.*—Ah-chong has not yet appeared; Ah-sam returned about half-past three, saying he had lost his way, having gone very far, and knew nothing of Ah-chong. Bob went to seek him, because the others were ill, and he fired his gun several times in every direction, but without result.

*September 4th.*—Again to-day we heard nothing of Ah-chong, and I begin to think we shall see him no more. I sent Bob and three other Chinamen to search for him on every side, but, on their return, they said they had not found him, nor any trace of him; the ground being so dry, no footprints were visible.

*September 5th.*—Having lost every hope of seeing Ah-chong again, I resolved to tow the "Neva" some miles lower down stream, as the waters are diminishing every day. Sailing slowly, from time to time we fired a gun, in the faint hope of being heard by Ah-chong. Something more painful than the loss of Ah-chong, was however, now in store for me.

When we cast anchor, I sent the Chinamen on shore—that is, to a large sandbank, to wash and dry their linen and their blankets. The others went shooting on the opposite bank, and I, the engineer, and the cook, remained on board. About two o'clock Ah-tong came up to the "Neva," and began to insult me, using very coarse language. I frequently told him to hold his tongue, to be quiet, and to go away. He, however, persevered

in his insolence, and I threatened him that I would land and chastise him, whereon he redoubled his abuse. Then I took a small cane with which, the day before, Bob had brought down a kingfisher, and, having been pulled to land by the Chinese cook, I again ordered Ah-tong to be silent, and to go with his companions. He refused, and I struck him three or four blows on his back, breaking the little cane. Then I ordered Ah-sam and the cook to take him away. They tried to persuade him to go with them, but he would not, and Ah-sam took hold of him and began to drag him along. When I saw that, I told Ah-sam not to use any violence, but to take him by the arms and convey him to the tent which they had erected on the shore. This was done, and the cook and I went back to the "Neva." At tea-time Ah-sam came to me and said Ah-tong was dying. Although I did not believe him, I went on shore at once, and there I found it was too true; Ah-tong was indeed dying. I carried him on board, and did all in my power to revive him with tea and brandy. All my efforts were unfortunately vain; in half an hour he died. I then learned from his companions that the poor fellow had been delirious the whole day; he had told them that on the morrow he should go to Hong-Kong, and also made many other unfounded statements. For some time he had been out of health, and, on examining his body, I found it was mere skin and bone, although this fact would not have been suspected from his face. When I examined him, Mr. Preston, the engineer, Bob, and Jack were present. The cook, Ah-men, said Ah-

tong had suffered from heart disease, but none of us paid much attention to that. All on board believe he died of sunstroke, as he had remained exposed all day bare-headed to the sun, in spite of my reiterated orders that he should put on a hat.

*September 6th.*—Again to-day we have not heard of Ah-chong, and now I give up the hope of finding him alive. Ah-men and Ah-sam undertook the task of burying their companion, digging a grave for him on the shore. They accomplished the ceremony with great indifference. I thought they might have had some respect, if no more humane feeling, for their countryman and comrade. Of course it was a day of mourning to me; I mourned doubly for the loss of the two poor Chinamen.

*September 15th.*—On account of my many anxieties, I have not been able to go on shore these last few days. The engineer was again ill with a bilious attack. My sportsmen, seeing they very rarely found birds of paradise or cassowaries, for which I give a reward in addition to their wages, went shooting unwillingly, and brought only a few uninteresting birds. Yet from the ship I often see some fine species, which they cannot obtain. For instance, I saw, passing in several coveys of eight or ten, the *Gymnophaps Albertisii*, a peculiar and very rare pigeon. Nay, two pairs alighted on a tree, almost within the reach of the "Neva," and there is no doubt about the species, yet my men did not succeed in finding it. I discovered this interesting species in the west of New Guinea, at Andai, but I only got two specimens of it, and from time to time until now

I have not been able to obtain any others, although I saw it in 1875 at Naiabui, and also on the Fly River. Dr. Beccari found it, but he also only obtained one or two specimens. I got a fine *Clyclopsittacus* (*C. Aruensis*), which I now find for the first time in New Guinea, as it is known as belonging to the Arru Islands.

*September 16th.*—On the 13th it began to rain, and it rained at intervals all day and night. On the 14th and 15th the river rose considerably. Such enormous masses of decayed vegetable matter were washed about in the water that they had the appearance of small green islands. Trunks of gigantic trees threatened to carry away the “Neva” with them, and to all our other miseries was added that of keeping watch all night, and often under a torrent of rain spending hours in freeing our anchor chains, which had become entangled in the boughs of trees carried down by the current. Fortune is against me, but I am not disposed to abandon my undertaking. The men want me to turn back, and do all they can to dishearten me, and lead me to the point of saying, “Back again!” They were, therefore, much disconcerted this afternoon when they received orders to go forward. We started this morning at half-past five, and at 2 p.m. we anchored about twenty-five miles beyond Snake Point. We saw nothing we have not already seen, or that is worthy of remark.

*September 20th.*—The rain continues, the river is swollen, and the current is strong. We continued ascending the river, and at the point where we were stopped on the 1st of August last year,

by a bank of stones, we were to-day in deep water. In some of the reaches of the river, the current was so strong that we narrowly escaped being driven back. We saw two canoes with some natives, who, as soon as they saw us, left them, and fled to the forest.

September 21st.—Notwithstanding the strong current, we set sail, and again saw many places which, for different reasons, we remember we had seen last year. Nay, we passed the house we visited last year, on the 16th of June, where, on our return, we were saluted with arrows by the natives. Although the natives might not be at hand, we heard their dogs barking. The house was shut. I lay to, in order to search for a trumpet-flower (*Begonia spilotophilla*) which I got at this place last year, and which I never could find elsewhere, notwithstanding the closest search. Here it grows on the bank of the river, fifteen or twenty feet above the water level, in red clay. On landing, I saw a footprint, and, at the beginning of the path leading to the house, a stick was set up, at the top of which was a bit of bark. It was evident the stick had been placed there only a few minutes before. Is this a mark to indicate that this is forbidden ground? Is it a sign of Tabu? In Mibu Island they put a cocoa-nut at the top of a stick to signify Tabu; at Yule Island they set up sticks with stone heads.

I saw to-day some trees of *Sloanea Paradisearum* bearing fruit. Baron von Müller, who wrote a description of these species from some specimens I obtained last year, supposed the fruit to be sweet flavoured. He would change his opinion

if he were to taste it. He also supposes the wood is very hard, and in this respect he is right; like the *Sloanea Jamaicensis*, it deserves the name of "break-axe tree." It is tolerably large, with thick, dark-green foliage. I only saw it in dry and elevated places. As it was now night-fall, we cast anchor a few miles beyond the small island, hoping to be able to continue our course to-morrow, at least as far as the point, not more than four or five miles distant, from which we perceived the high mountains on the 17th of June last year.

At sunset I heard a *P. Raggiana*, and saw it perching on a tree.

September 22nd.—At early dawn this morning I again heard the note of the *Paradisea Raggiana*, which seems to have roosted on the tree where I saw it yesterday, and, going on shore, I killed it. It is the most beautiful bird I have got yet, and exactly resembles the species described by Salvadori, and which I obtained at Epa and Nicura, in 1875. Although this species was first described by Sclater, the skins of his specimens were not perfect, and I believe we must hold the birds described by Salvadori, and which are now to be seen in the splendid museum at Genoa, as a type.

Poor bird! it greeted the sun for the last time. When I saw it, it was on the edge of the trunk, making its morning toilet, shaking the dew from its feathers, and preening them with its beak one by one. It seemed from time to time to look at the sun and salute it with its music, and then return to its task of smoothing its plumage. Now and then it looked around and about, stretching its



neck to watch the approach of an enemy. I never should have been tired of admiring the beautiful creature, but a noise on board might have made it fly away, so I had to shoot it at once. In less than a second the shot was fired, the crime committed, and the lovely bird dead at my feet. I remarked that, an hour after death, the colour of feathers on the sides was less bright, as were also the yellow feathers on the head. There is no doubt that these colours, the red and yellow, are spoilt by time, notwithstanding every care being taken to preserve them from the light and dust. The same thing happens to the feathers of the *Seleucides*, which, in time, from yellow turn white.

Soon afterwards I went on board and we set sail. The current was very strong, on account of the previous night's heavy rain. In a short time we perceived the water was diminishing rapidly, and we were driving on a bank of stones. We tried to back, but being unable to make use of the rudder on account of the strong current, we were driven on the bank and ran aground. Fearing things might become worse, I quickly sent the men on shore to cut small trunks of trees, with which to secure the "Neva;" but before they had accomplished this the water rose, and she floated without our assistance. I recalled the men, and we cast anchor on the left side of the bank which had stopped our passage, proposing to renew our attempt to-morrow, if the current should be less strong.

During the week which ended to-day I have obtained some fine birds, although none of a new kind. Small pigeons are particularly abundant

here, and I killed five different species on a single fig-tree; among them, a specimen of the rare and beautiful *Ptilopus nanus*, one of the prettiest and most graceful birds of this class. I finally obtained a couple of *Gymnophaps Albertisii*, which I mentioned a few days ago, whence I conclude there can be no doubt of their existence in this part of New Guinea; and having seen them on the wing many times, and never having met them in the forest, I suppose them to be migratory birds. To-day I saw the *Dasyptilus Pesquetii*, and obtained a very fine male specimen. It was here we found one last year, and never since have we found them in low land. Notwithstanding that this bird may sometimes be seen on plains, there can be no doubt that it usually inhabits the mountains. I have seen it on Mount Arfak, and noticed its feathers in the adornments of the natives of Epa, but I have never come across it on the shores of Fly River, nor near Kataw nor at Naiabui.

The banks of the river where we have been for the last few days are covered with tall trees, and at this season of the year they are full of bloom. They are inhabited by little parrots and many honey-eating birds. The parrots are *Lorius erythrothorax*, remarkable for the bright red colour of their feathers. On these trees, covered as they are with white flowers, there is the *Cyclopsittacus scintillatus*, the *Trichoglossus cyanogrammus*, the *Eos fuscata*, the *Coriphilus placens*, and they all contend for the possession of a tree, making a deafening noise from morning until night. Between one species and another, the fights are frequent, and the fewer and weaker are defeated;

but they come again in greater numbers, and the contests begin anew. Notwithstanding their tiresome noise, one cannot help admiring their beauty, the movement of their wings, the manner of their disputes, and the loving way they court the females. The tree which attracts such numerous and beautiful birds is deciduous, and its blossoms appear before the leaves, which come just when the flowers fall. It seems to be very common in this place, and is certainly one of the handsomest and largest trees I ever saw, and one of the greatest ornaments to the banks of the Fly River. All the species of little parrots already mentioned have the tongue furnished with a sort of brush, which opens or shuts at pleasure. This brush is evidently used to gather the honey which forms the principal nourishment of these birds. On opening their crops, I found them full of an almost transparent and thick fluid. I remarked, however, that two of the *Trichoglossus* species were full of white grubs, which probably live on the flowers of the tree. I had previously observed some larvæ in the stomachs of these birds, but had supposed their presence might have been accidental; having, however, found their stomachs full of grubs, I think the birds visit the trees not only on account of the flower-nectar, but to get these grubs. Thus they are not only a means of fertilizing the flowers, but they also render the plants good service by ridding them of the destructive insects.

*September 23rd.*—It is Sunday, so we are resting. The men not having succeeded in killing any large birds yesterday, were in a bad humour

to-day, because we had very little meat. Since we have been in this hilly country, the gowra has disappeared, or is at least very rare, and our larder is no longer so well supplied as before.

*September 24th.*—At midnight, I was awakened by the shock of a tree-trunk which was dashed by the current against the “Neva.” I asked who was keeping watch; but nobody answered. I asked again; Jack answered, and I scolded him for having made no effort to avert the shock. He said nothing more, and all seemed quiet. Not so. Shortly afterwards Jack called me, saying, “Master, the Chinamen have gone away, and have taken the boat with them.”

The Chinamen fled! What strange news! I would not believe my ears until I was assured by ocular demonstration that they were not on board, and the boat had disappeared. I could not express what I felt at that moment. The idea that we were all lost passed through my mind; but for one instant only; and looking at my engineer, who seemed horror-stricken, I said to him, “Courage! if our hour has not come, we shall not die; and I feel sure our hour is not near.” Luckily, every night enough firewood was got on board for the engine to consume in three or four miles’ journey; therefore I ordered the fires to be lighted, that as soon as possible we might get as near the shore as we could, so as to provide wood for a longer journey. I wanted to follow the Chinamen, and save them from certain death, as well as to recover our boat, which is absolutely necessary to us, or at least to take one of the canoes we had seen abandoned.

As soon as the engine was ready we set off, and succeeded in bringing the "Neva" close in shore, although not without risk, on account of the darkness, and the strength of the current. The hours from midnight until morning were spent in cutting wood. At six o'clock we started, in the hope of overtaking the fugitives, notwithstanding the strong current, which must certainly have carried them far from us. Some covert observations of my Polynesians, especially of Bob and Jack, convinced me that this was a plot arranged between them and the Chinamen, to oblige me to go back. The engineer had directed my attention two days before to certain symptoms of scheming between Jack and Ah-men, but I had not attached any importance to them. Recalling this fact to my mind now, however, I understood the whole affair, and hoped to come up with the fugitives. I could not persuade myself that they had ventured to go unarmed, and into a country where they knew the natives were in great numbers, and ready to fight, as experience had taught us.

Unfortunately, a little after our departure, as we were passing near a small island, we struck on a sand-bank in the middle of the channel between the island and the shore. I cannot understand how it happened, unless I lay the blame on Jack, who was at the helm by his own desire; Bob was in the bows, on the look-out to avoid the trunks of trees; Tom, who was ill with fever, was obliged to lie down; and I was sounding. Therefore, seeing we were running against the bank, which I also knew of from the chart, I ordered

Jack to keep to the right, so as to regain the deeper channel; but Jack, either from malice or because he had not understood the order, steered to the left, and with a violent shock we ran on the bank. Every effort to get off was useless! At any attempt to go backwards or forwards, the screw grated against the stones at the bottom, and we were in great danger. The engineer advised me not to try any more, lest we should break the screw.

The impetuous current, the stones, the trunks of trees which dashed against the "Neva," the proximity of the natives, the idea that every minute might endanger the lives of the three Chinamen, the probability of the greatest misfortunes if the waters sank, united to make our position critical. Fixing our eyes upon some stationary object on the shore, we tried to guess whether the waters were rising or not; and it is easy to imagine with what anxiety, for on that might depend our safety or our ruin. The sky was dark, the rain continued, yet we did not despair. About mid-day the current increased, and the waters rose. Many times the "Neva" seemed to be floating, but it was only seeming; in reality the current was pushing her on the stones, and after having lifted her a little, left her on the bank as before. These were anxious hours. However, at about half-past four we were once more afloat. The current carried us into a sufficient depth of water to enable us to anchor and get the engine to work; after that we went on for about a mile, and there we stopped again, night being too far advanced for us to

proceed, and began to make an ample provision of wood for the morrow.

I am accustomed to such scenes and events, and I may say I do not care much what befalls me ; but for the poor engineer I felt sincere compassion.

We both believe Bob and Jack to be implicated in the flight of the Chinamen, and we do not yet know what we may expect from them, nor how far we may trust them. Why did the Chinamen leave us ? For my part, I believe they must have gone mad. The air of the Fly River certainly does not agree with them ; two are dead, and the rest have run away. But whither ? They went away without sails, and without fire-arms. They took with them only some boxes of rice, some ship's biscuits, some tea, a few cooking utensils, and an axe. Can they hope to reach Somerset ? Can they believe they will be so fortunate as to avoid the natives whom they may fall in with ere they reach the mouth of the Fly River ?

No, their intention must be very different. I may here remark, that Ah-ou had been laid up on board for a month with an abscess in his foot, extending to the instep, and of so malignant a nature that for many days I despaired of his recovery, and only by assiduous care had I succeeded in effecting a probable cure. Although he is now out of danger, he is unable to work, and it may be imagined he is of little use to the others. If fortune does not favour us, and we do not overtake these men to-morrow, they will certainly have fallen victims to their own folly, and to the ill-will of Jack and Bob. Meanwhile

the rain continues ; we may look forward to a bad night, and it will not be possible to take any rest, as we shall be obliged to protect ourselves against the trunks of trees, which are driven along by the current.



## CHAPTER VI.

A trying night—No news of the Chinamen—I despair of finding them—We are again attacked—A gloomy retrospective summary of events—Bob and Jack prove to be a pair of utter rascals—Mutiny—The mutineers surrender—We find much difficulty in ascending the river—Sabbath pleasures—A tremendous storm—Abundance of birds—A beautiful mist—Hawks again—My forebodings—Bag-a-bani—Fishing.

*September 25th.*—As I had anticipated, the night was very bad, and we got no rest. We started as soon as possible, that is, about 9 a.m., having been unable to get wood enough before then, as there were only two men to cut it. Being helped by the current, we ran about five miles an hour; but we were prevented from going at full speed by the extraordinary quantity of floating trees which barred the way. At half-past four we were obliged to stop for want of firewood. We saw neither the natives nor the fugitives. On passing before the house I spoke of some days ago, we observed it was shut. The presents I had left on the shore for the natives—linen, bottles, knives, and axes—were no longer there. Probably the Chinamen took them, if they were still there when they passed. At the place where we had previously seen two canoes and

some natives, we saw to-day neither men nor canoes. A little lower, we had the luck to find some canoes abandoned on the shore, which we had seen when going up the river, and we took the largest one, as it would be useful to go on shore in to provide ourselves with wood, for it was not always possible to anchor near enough to the shore to enable us to land.

During the day nothing remarkable happened.

The Chinamen have already forty-eight hours' start of us, and I have little hope of seeing them again.

*September 26th.*—To-day we descended the river for many miles, and almost reached Snake Point, but without seeing the Chinamen. On board, we are all tired and worn out. We cannot sleep either by day or by night, because we are obliged to watch, and defend ourselves from the tree-trunks. The men refuse to work, and I cannot blame them; they have not slept since Sunday night; they have been obliged to cut firewood, and have been exposed to the wet day and night. I do not think it possible to find the foolish Chinamen! I see it is useless to follow them, notwithstanding my anxiety to do so. We are all in absolute need of rest. This evening a dispute took place between the men and me, because they refused to obey my orders.

*September 27th.*—This morning Jack and Bob, unknown to me, directed the engineer to get up steam, but he refused. As I did not know their intentions, I told them that from the moment they pretended to command on board I should consider them as mutinous, and I should

not give any more orders, but consider myself as a passenger. The day would have passed very monotonously, if the appearance of some natives on the right bank had not caused some excitement after our dinner. I was resting in my bed, and enjoying a smoke, when a cry was suddenly heard not far from us, and at the same time I heard sounds in the "Neva" which betokened that the natives were shooting arrows at us. Luckily, as it rained, all the curtains were closed, and nobody was hit. Three arrows, however, stuck in the tent a little above the engineer's head, and it is almost a miracle he was not wounded. Two others, which remained fixed in the deck, were probably aimed at the cook, who had been seen by the natives through an opening in the curtain. Bob and Jack had their guns ready, and fired before I had time to see what was the matter. The natives fled so quickly that I did not even see them.

*September 28th.*—As we foresaw, the natives returned to-day; but the "Neva" had been removed, and was anchored almost in the middle of the stream, out of reach of their arrows. They shouted a good deal, and shot a good many arrows, which fell short. They took care to hide themselves behind bushes and trunks of trees. Still I was able to discover one, apparently a chief, hidden behind a large tree. I took aim at the trunk with my rifle, and despatched a bullet. This was sufficient to send them flying, and off they went screaming, as usual. Tom and Bob had landed to get some birds for eating, but on the opposite bank, so they were out of danger. They shot

a young cassowary whilst it was eating mushrooms under a big tree. To-day the men again gave their orders to the engineer, but he again refused to obey. What they want I do not know. The fact is, neither I nor the engineer can sleep in peace, especially when I recall to mind that Ah-men one day told me Jack had said to Ah-sam that if he had killed me they could have returned sooner to Somerset.

In order to show my men I am not a bit afraid of them, I called them aft, and told them what I thought. I begged them to spare the engineer, who is a married man, and has a son, and for the first time I allowed them to keep their guns at night. Besides this, I gave them two revolvers, saying that if they intended to kill me there was no difficulty about it; but they had better not give me time to know their intention beforehand, or wound me only, for that would be worse for them. The men declared they had never said to Ah-sam what Ah-men had related to me; but the protestations of one are as trustworthy as those of the other; and as for the veracity of my men, I do not believe a word they say. If some day these papers are read, the reader will imagine that my nights were sleepless at this time; he may probably suppose I was always watching, fearing to see a gun or a revolver at my breast. But I can assure him it is not so; I sleep peacefully; and being a fatalist, I lie down without asking myself whether I shall be alive the next day.

*September 29th.*—This being the last day of the week, and the last but one of the month, I can

make a summary of the month and of the week at the same time, and in a few words. From the day in June on which Bob began the disputes, there was no more peace on board. Insubordination increased daily, and of course its results manifested themselves. Ah-chong was lost—dead in the forest probably—in consequence of his disobedience to my repeated orders never to go far from the “Neva.” Ah-tong was killed by a sunstroke, when already injured by his own obstinacy, which I could not overcome by severity or by mildness, by presents or by punishment. The other three Chinamen have fled on the very eve of our return, which, a few days before their flight, I had fixed for the 15th of October. Why did they run away? For the last month, Ah-ou had been an invalid; he ate and drank, without doing any work. Ah-men, the cook, had nothing to do but attend quietly to his employment, and was earning six pounds a month. Ah-sam was employed to look for insects, and from time to time to cut wood. As he disliked that occupation, I had tried to employ him in preparing skins; but this work he refused. I then offered him a gun, to go shooting; but nothing pleased him except smoking, sleeping, and eating. What I say of him, applies equally to the others. I tried rewards and fines; I also tried refusing dinner and supper to those who did not work; all was of no use. They preferred following their own caprice, and unluckily now they are suffering the consequences. During the last four months matters went on thus, becoming daily worse and worse, until, at last, they have reached this climax. Now

I am left with only three men—Bob, Jack, and Tom—besides the engineer.

Bob, who has been in my service ever since last year, was the one I knew best, and whom I believed I could trust, notwithstanding some faults. He was better paid than the others, that is, he had five pounds a month instead of four; but as I gave a reward for all the birds of paradise, or for new species, he and his companions earned more than ten or fifteen pounds a month. Now I see the mistake I made. Intent on their own interest only, they shot merely at the species useful to them, and disliked working, that is shooting, in the places where birds of paradise were scarce. After the first two months, finding themselves in possession of a pretty good sum of money, they thought it would be better to return to Somerset, where they could spend their gains. Therefore, Bob not only became the ringleader, but bribed those who were willing to work; and, as I afterwards discovered, prevented them from doing their duty. He it was who stole, and induced the others to steal. When I believed I still had a large supply of provisions on board, I found a great quantity had disappeared. Promises of a larger reward, threats to diminish the sum I owed them—all were alike useless; and I never could discover why he, who came with me so willingly, behaved in such a way. He was extremely sullen and resentful, and never took any advice well, even when it was for his own good. I may add, that these half-civilized savages are all the same. So soon as they possess a shirt and a pair of trousers, they think themselves demi-gods.

Another utter rascal is Jack, who comes from the Samoa islands; his feats became known to me only after we had left Somerset. I knew he got drunk very often; but as that would be impossible on board the "Neva," I did not refuse to take him. He had been some time on board one of the missionary vessels, and therefore I never thought he could be such a rascal as he is. I discovered that at Somerset he was looked upon as a liar and a thief; but unfortunately these virtues only revealed themselves on the Fly River. He stole by day and by night; he lied always; he privately instigated the others to rebellion; and he never did a stroke of work. Under one pretext or another, he remained on board almost always; and if he did go on shore, would only bring a bird of paradise, or what was of profit to himself.

Tom, the third, although young, is already a liar and a thief. He would not be so bad, but being weak-minded, and thinking himself a boy, although twenty years old, he lets Bob and Jack rule him, and steals and lies on their account. Many a time I have caught him stealing in my cabin, and he often acknowledged that he did not work because of Bob and Jack. I liked the rascal; and as he understood the French tongue, I many times reasoned with him as if he had been my son. Sometimes I succeeded in recalling him to his duty; but the improvement lasted a short time only, and, led by the others, he would again obey their commands.

Now, in such a position what is to be done? I do not like to start before the appointed day,

that is, the 15th October. It would be better perhaps to remain here; but the demeanour of the natives obliges us to leave soon. To proceed up the river is useless, for the men will not shoot. Whatever may happen, I will not do their will. My authority is disputed, and may be set aside. At any moment, a gunshot, or a stab from a knife, may put an end to every question between me and the men. I discussed the probability of such a termination with Mr. Preston, the engineer, to-day, and he acknowledged that he believed we were on the brink of a catastrophe. I encouraged him by showing him the men required him, to enable them to reach the mouth of the river, and would therefore spare him. But he answered that, after having passed through the mouth of the Fly, and when they were in the open sea, they would certainly kill him, to get rid of a dangerous witness, and would make use of the sails instead of the engines. Without saying so, I was much of his opinion, and I tried to persuade him to look at life as if it were a bill of exchange payable at sight, and which, as men of honour, we must pay without regret—whether to-day or to-morrow it matters not. However, I doubt whether I succeeded in persuading him.

Bad weather was added to our other misfortunes; it was eight or ten days since we had seen a ray of sunshine. No more clear days, only clouds and rain. To-day, there came a regular storm—thunder, lightning, and wind. On board, everything is wet; the rain penetrates everywhere; and by day and night we are obliged to guard against



the trunks of trees, or floating islands, swept along by the current.

*September 30th.*—This morning, after breakfast, the men came to me, and in Mr. Preston's presence they begged me to keep the command of the "Neva." They owned their faults, and their bad conduct, their lies and their robberies. They begged pardon, promising to do their duty until the end of the voyage, to work and go out shooting as I should please to order. Having made them a speech, I ended by saying I would pardon all the past faults of those who should behave well in future, and thus dismissed them. This is a truce, but God knows whether it is sincere, and how long it will last. I do not believe in it, and should not be astonished if under such humility some new trick is concealed. Suspecting they intend to get away in the canoe, I told them that in such a contingency they may take the engineer with them.

*October 1st.*—We ascended the river to-day some miles, but the strong current prevented our going further. We saw no natives.

*October 2nd.*—Two men went to cut wood, and Tom went shooting. He brought some fine birds, among others a *Nasiterna*, which I find for the first time in New Guinea (*Nasiterna Keiensis*).

*October 3rd.*—This morning we again tried to ascend the river; but we did not go very far, because the current continues very strong. We anchored about 1 p.m. in front of a hill, where a magnificent forest promises us plants and animals. In an excursion which I made on the right bank,

I discovered that the country rises, hill after hill, as far as one can go on either side of the river. The foot of the hill, on the river, is a sandy soil, with strata of conglomerate, whilst the face of the hill is a kind of red earth mixed with quartz. Here I observed that a *Canarium* is common, upon whose fruits the *Microglossum* (black cockatoo) feeds. The place is also frequented by cassowaries, but we did not see any of them. I shall long remember the magnificence of the plants at this place, and the beautiful ferns, from the smallest to the glorious tree-fern. It seems as if they must have been sown there purposely. Two fine Begonias, the Nepenthes, and other clambering plants with variegated leaves, rendered the place very interesting. Birds were rather scarce, although I heard the note of the *P. Raggiana*. Before us there is a sand-bank, on which hundreds of turtles have been laying their eggs, as is easily seen by the marks which these amphibious creatures have left in the sand.

*October 4th.*—I observed this morning several of the *Gymnocorvus senex* digging in the sand for turtles' eggs. I sent the men to follow the example of the *Gymnocorvus*, and they came back with a large supply of eggs.

At noon, a canoe with two men in it appeared about five hundred yards from the "Neva." They landed, and seemed coming towards us, probably to inspect us. Thinking it prudent not to allow them to come any nearer, I fired a shot into the middle of the river. This was sufficient; the natives fled, leaving their canoe behind. In the afternoon, Bob and Tom went to examine the

canoe, and having found several bags of sago in it, brought two back with them.

*October 5th.*—At the same hour, and on the same spot as yesterday, some natives appeared; one of them, coming in advance of the others, made a long speech, which was followed by a general shouting. Two balls from my rifle were sufficient to send the party flying. Perhaps they have returned to their homes, to relate what they have seen, and the marvels of our fire-arms, to their women. I should hope they will not return again; their visits are always annoying. We are now so few, that the vicinity of the natives is dangerous. If one or two of us were even slightly wounded, it might be the loss of the whole party. Before going to bed this evening, I shall fire off some rockets.

*October 6th.*—This week has passed like the others. Notwithstanding their promises, my men did little or nothing; indeed Bob and Jack do nothing but smoke and eat.

*October 7th.*—It is Sunday, therefore rest and weariness; an endless day. How happy my men are! They, like brutes, can spend the hours in eating and sleeping, with no other care, no other thought than the welfare of the body. Eating and sleeping! such is the aspiration of their souls, if they have souls. Filling their stomachs to repletion in order to sleep soundly; sleeping that they may get over the time necessary to digestion, and then begin to eat again! As all their happiness consists in this, they would desire nothing better than a never-ending Sabbath.

*October 8th.*—We are now at the beginning of

a new week, and as usual it does not begin well. The engineer and Tom are both ill with bilious fever. In vain do I urge them every day not to neglect the rules of health; nobody listens. In vain do I remind them we are still nearly five hundred miles from the sea, and seven hundred from Somerset, and that we shall need all our strength to reach home! They care for one only thing—eating; and the consequences are fever and indigestion. Two are ill to-day, two more will be ill to-morrow, and so on. How shall we reach the sea? Every day's journey requires strength for cutting wood, strength to guide the helm, energy for taking soundings and for managing the machinery. Pray Heaven we may not also have to defend ourselves against the natives. And yet, my men have only one thought—eating.

*October 12th.*—Last night there was a furious wind, lightning, thunderbolts, thunder, and a complete deluge of rain. The current threatened to drag the “Neva” along with it in its fury; the anchors were letting go their hold; the vessel was leaking in every place; the two canoes we had in tow were full of water, and under the heavy rain we were obliged to keep baling them all night; we had to avoid the tree trunks, and masses of vegetation like floating islands; and all this in profound darkness, broken only by the lightning, followed by obscurity deeper than ever. Fearful, long, eternal night of horror! night of anguish and terror! It seemed to us as if the world must end with that night; and indeed, from one moment to another, the end might have come for us. At last day dawned, and the rain ceased, but the

sky was still overcast with dark clouds. So soon as it was possible, we got the engine in motion, so as to look for a safe place beyond the current. We found one about two miles lower, and there cast anchor, hoping to get some rest after that terrible night, spent, as one might say, under water. While we were trying to anchor, two birds of paradise slowly crossed the river, and during the day many more perched on the neighbouring trees; but we were too tired to pay any heed to them.

October 13th.—To-day I found birds of paradise everywhere: *Seleucides*, *Paradisea apoda*, *P. Raggiana*, *Cicinnurus*, and doubtful *Paradisea*—the name I give to those I believe to be hybrid—all around the “Neva.” I am accustomed to hear their note almost daily; it always has a fascination for me; but now, that I am bidding farewell to this wild country, that note sounds sweeter than ever in my ears. It seems to invite me to stay. The birds are like the genii of the place, saying to me: Leave us not. And I would willingly remain longer in this land, though it be inhospitable, for I love it much, but I am forced to leave it. We have only one month’s supply of flour on board; and we cannot rely upon game, because we cannot shoot every day, nor calculate on killing large birds. Two of the men went out shooting to-day, but had very little success; and they say the birds of paradise are so shy it is difficult to get near them, and that there are no other birds to be seen. However, Tom went alone in the afternoon, after I had promised to pay him double for good specimens, and either by industry or good luck he got

three birds of paradise, two apodal and one hybrid.

*October 17th.*—We went down the river for more than twenty-five miles.

*October 18th.*—Two men being ill to-day, we were unable to get on for want of wood.

*October 19th.*—We resumed our voyage, and at 4 p.m. stopped in front of a village, now deserted—nay, almost destroyed—which was well peopled on the 9th of July, when I went to visit it. All the plants and small trees have been cut down, and the square space in the centre seems to have been used for dancing, or some savage ceremony. On two sides of the enclosure were rows of houses, and from their number and size I estimate that they may have contained four or five hundred people. It is only three months since this village was abandoned; but if we were to judge of the time by its desolate appearance, we might suppose a year had elapsed. The roofs of the houses are, for the most part, rotten; bones and other remnants of the natives' food lie about, decayed. The grass is rank, and the plants cut down by the natives are putting out new shoots. In short, it seems as if Nature had protested against the usurpation of man, and was vindicating her rights. In the course of a year no trace of this village will remain in existence. Whither the inhabitants have gone, or who they are, is a mystery to me. They have disappeared like a scene in a drama, leaving no trace, nor any memory, save that of their cruelty.

We saw to-day four *Nettapus pulchellus*, which flew on before the "Neva" for about twenty

yards ere I succeeded in killing one of them. I also shot two ducks (*Dendrocygna guttata*).

*October 22nd.*—The night was still. Neither the rustling of the leaves, nor the sough of the wind, the shrieking of the flying foxes, the sweet and melancholy note of the gowra, nor the piercing cry of the *Talegallus*, disturbed its calm. The current was scarcely heard gurgling against the chain or the keel of the “Neva.” There was a dense fog, which the silver moonlight, unable to penetrate, only rendered whiter. The river was also covered with a thick white veil; and even the forest, with its fantastic shadows, was hidden behind the vapour. Morning dawned slowly, the sun lacked power to dissipate the dark veil of night. At last day broke, but the round rayless sun showed itself through the fog, which it was unable to disperse, a crimson disc. The land and the forest appeared, little by little, but were still wrapped in thick mist.

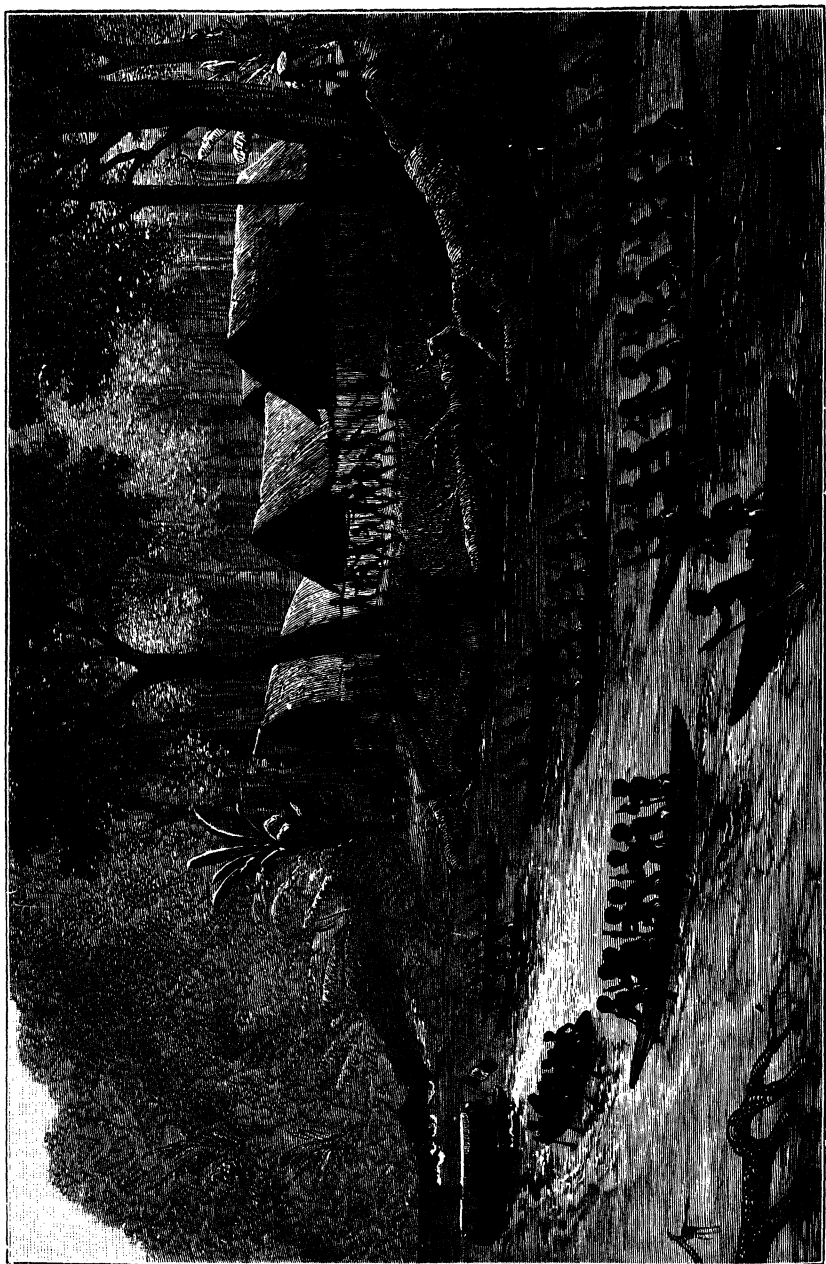
Whilst we, wet and shivering, were waiting to start, five large hawks, like spectres of the night, whirled about in the air above our heads, now near, now far from us. Certain superstitious feelings must be natural to man, because at that moment I felt myself a prophet, endowed with the power of a Roman soothsayer, and turning to the engineer, who was near me, eating, I said to him, “These hawks are forerunners of bloodshed; they have already scented corpses. To-day we shall meet with the natives, and fight them. There are five birds. Do they scent five corpses?”

All on board heard my words, and nobody liked them. The engine being ready, we weighed

anchor, making for the sea, on our way home, please God, and favoured by the current. The air continues cool. The fog gets into our lungs and our eyes, it moistens our clothes, and hangs upon our beards like millions of beads. The distance seemed to be doubled, but we are going at full speed. In a short time we passed those points which looked at first so far off. A sudden bend in the stream brought us almost on top of a canoe, containing a man and two women; they instantly jumped on shore. The canoe was laden with sago, and we stopped in order to obtain some, but the proprietor was not disposed to part with it on any terms. Having pulled the canoe up on the bank, he mounted guard over it, armed with a bow and arrows. I told him we were friends, and I wished to buy his sago. He also made a long speech, but I heard only one word often repeated! "Bag-a-bani, bag-a-bani." I did not understand his meaning, any more than he, perhaps, understood what I wanted. Having made his canoe fast, he withdrew a little, and with much deliberation chose some arrows, and restrung his bow. He then took aim at us. One of the women ran to him, crying, "Bag-a-bani, bag-a-bani," and prevented him from shooting, ultimately persuading him to lay aside his bow. I fired, aiming at a dog near them. The sand flew into the air, but neither the man nor the dog was frightened, as of course neither understood the meaning of a gun. But showing them various objects, I endeavoured to make friends with the savage, who was a fine, strong man, and brave to boot; but he kept on talking, in his own lan-







ATTACKED BY CANOES.

guage, and I could distinguish nothing but "bag-a-bani, bag-a-bani."

At last, seeing he was determined to keep the contents of his canoe, and as I would not take any of the sago without his leave, I resolved to go on my way, after having thrown him a knife, some bottles, and a piece of red cotton. After we had steamed about five miles in the fog, the look-out shouted, "Canoes in front!" I looked, and saw a new village, built since our passage by this place, perhaps by the same people who formerly saluted us with a shower of arrows. A score of houses were scattered here and there on the river bank. In the middle was one in the shape of a boat turned upside down, like the huts which in other parts of New Guinea are intended for public receptions. This one was not meant for us, however, for three score and a half men, armed with bows and arrows, were coming in their canoes, and with diabolical noises, to attack us and try to bar our way. We made as quickly as possible for the left bank, trying to proceed without giving or receiving any bodily harm; the natives grew bolder, and coming to the front rather than to the side, within bowshot, began to shoot at the "Neva."

One canoe only, with a solitary man in it, came within range of our guns, which were loaded with shot. My men—that is, Jack and Bob—had orders to keep in hiding, and to fire only after I fired. The engineer was at his post, and Tom at the helm. The man in the canoe put down his paddle, took up his bow, and the arrow

passed over my head. Three shots at once made the bow and arrows fall from the hands of that bold savage, and he fell into the river, catching hold of the canoe. Two more shots from the prow, and he disappeared into the water. The others continued the pursuit, but after a few rounds from our guns, they stopped for an instant; then others came up, and they began the pursuit, keeping in the background. After having passed a bend of the river, we found eight more canoes on the left, with about thirty men. On seeing us they jumped out of their boats, and shot at us with their arrows. Thus we have enemies on both sides and behind. Our forbearance towards the natives begins to wear the aspect of rashness, for if they come nearer it will be difficult to defend ourselves; they are more than a hundred—we only five. I ordered the men to fire again, and with my rifle sent a bullet to the feet of one of the natives on land. This man seemed to be a chief, and encouraged the others to run along the bank and follow the “Neva.” The mud bespattered his face, but had no effect; and he shot off another arrow, to which I responded with another bullet. He fell, and tried twice to get up, but in vain. Probably he was wounded in the leg. When the men in the canoes heard his screams, they went to him, and ceased pursuing us. We passed in front of several more dwellings, and saw many natives, but they gave us no trouble, and we went on in peace. Near some of the huts, we saw only one old and five or six young women. They showed no signs of fear, but beckoned us to go on shore. No men were to be

seen, but it is not improbable that they were hiding; and if we had been so weak as to listen to these Papuan syrens, we should have paid dearly for our folly. To do them justice, I must say they evinced courage, and two of them were handsome, in their own style. As we passed near them, I threw them two bottles, which they picked up.

*October 23rd.*—Having spent almost the whole day cutting wood, in the afternoon I went fishing with dynamite. While I was fishing, an *Haliastur sphenurus*, with its female, and a young one already able to fly, were perched on the branch of a tree, interested at this novel method of fishing, and not in the least alarmed by the detonation. When I had finished, the male and female picked up the little fishes which I left, and took them to their young one.

*October 24th.*—We set off early this morning, but soon stopped, because I felt very ill. A strong cold south-east wind prevented the “Neva” from getting on, notwithstanding the current, and that the engine was at full speed, and agitated the waters of the river, which became very rough, like the foaming waves of the sea. It being a side-wind, the “Neva” rolled most unpleasantly. There is nothing worthy of remark here, except that on both banks the grass has been burnt by the natives.

## CHAPTER VII.

A chase—Its imminent danger—No firewood—Sad remains of the foolish Chinamen—I suffer from a severe bilious attack—We anchor beyond Ellangowan Island—Kiwai—Aground—A great risk—Thefts on board—Native canoes—A shoal of dolphins—Parama Island—Farewell to the Fly River—Yarru—Birthday Musings—Idleness of the Natives—We reach Tawan Island.

*October 25th.*—God grant we may not have another day like this. We set out at 8 a.m. and cast anchor at 7 p.m. Since daybreak, great columns of smoke have apprised us of the vicinity of the natives. We passed in front of several recently built houses, and saw women, boys, dogs, and pigs. In some places the women and boys fled, in others they showed themselves more curious than timid, and we passed on without trouble. At another place we saw five women, a man, and a boy ten or twelve years old. We passed very near, and I spoke to them and made signs, but was not understood. The women wore short petticoats, and were armed with bows and arrows. When we had passed, they showed their joy by jumping, dancing, and laughing. The boy was even more demonstrative than the others; and seeing him dancing round one of the women, I was reminded of a calf jumping about a cow.

To-day also, some women in the village invited us to go on shore, but I refused the invitation of these innocent daughters of the wilderness. About four o'clock we were close to another new and large village. About a thousand people were assembled on the bank of the river, which is fifteen or twenty feet above the water. They wore head-dresses like crowns, of white, yellow, and red feathers, white necklaces, and a large white conch shell on the breast. They were all armed, and ready to fight. More than twenty canoes were on the shore. The river was wide enough for us to pass by out of bow-shot, and being alone at the helm, I steered for the right bank, so as to pass without danger.

The natives, especially those who had the body and face painted red and yellow, jumped into the canoes, and endeavoured to stop us. Having called Tom to the helm, I remained near him, while Bob and Jack were at the bows. We were ready to defend ourselves, but I had given orders to my men not to fire before I did. Twenty canoes were following us, and several were alongside us, because on account of the shallow water near the shore we were obliged to keep the middle of the river. In every canoe, there were at least ten natives. We went at full speed, but their long and lithe canoes go as quickly as the "Neva," nay, even more quickly. They came so near that they could shoot at us with their arrows, but the arrows missed. We answered with a volley which reached the canoes, and stopped them for some time, and having thus left them behind we thought we should get rid of them. There came a bend in

the river, and for a mile and half or two miles, we lost sight of them, and hoped that all was safe. But no, here they were again, and in greater numbers, shouting, and coming upon us like demons.

Although we were going at full speed, we had only damp wood, and were overtaken. The men said to me, "Let us fire at them with ball, or we shall all be killed;" but I told them to be silent and to hide, hoping the natives would be tired out. The engineer, however, came to me and said, "It is my duty to inform you that there is no more wood on board, and we can only go four or five miles farther." I sent him back to his post, proposing to myself to do the best I could to spare the natives. Another half-mile and we saw another village, and three canoes on the bank, with some natives in them. Others were peering out from behind the houses and trunks of trees. We were obliged to pass very close; they let us pass, and seemed not to be afraid of us, nor to have any intention of harming us. However, as soon as we had passed, they seized their bows, and about twenty or twenty-five jumped into their canoes and began to pursue us.

The night was approaching; there was no more wood on board; what was to become of us, if they continued to pursue us? The men were grumbling at me because I did not allow them to make use of their guns. What was I to do? The natives drew nearer. Those from the large village, whom we had lost sight of, were coming again. In a few moments, they would all be close to us, and we should be lost. "Stop!"



I cried to the engineer, and then I added, "God is my witness, I did my best to avoid bloodshed ; and had I known my voyage would cost a drop of human blood, I would never have undertaken it. But now these savages are thirsting for blood ; let them have it ; and their blood be upon their own heads." Three canoes were upon us. I fired low ; the ball rebounded three or four times behind their canoes ; but the natives showed no signs of fear. Having lost all hope of stopping them, there was no time to lose. I fired a second time ; an oar was broken, and a man fell. Two more shots, and two more men fell. But we were safe ; the natives ceased all pursuit. A little while after, the lookout man said he could see our boat lying among the reeds on the bank, and we stopped shortly after to take it up. On first seeing it I was much pleased ; but when we had got it I felt very sad, for the sight of it aroused painful recollections. It was almost empty ; all the utensils had disappeared. Of all that the Chinamen had taken, nothing remained except a rope's end, an oar, and an old bucket used for baling out the water. A shirt was hanging on a bush near the bank. Here is all that apparently remains of the three poor Chinamen. It appears that the natives had used the boat, for we also found some taro in it. I never believed the poor fellows had reached Somerset, or even the sea, although I had some hope that they might have got so far, by avoiding the natives in the day and travelling in the night only. But now, although we have not seen their bones bleaching in the sun as the shirt was, I fear all is over for

them. Still I have a faint hope they may have been spared by the people. They were not armed, and perhaps their pacific aspect may have found grace with the natives. Having taken the boat, we cast anchor a little lower down, being unable to go on, on account of the darkness, and for want of firewood. We do not know where we are; owing to the darkness; but the burnt grass is a sign we are near natives. We may be near another village, and therefore we shall hardly sleep very soundly. The poor engineer is very weak from illness, and hopes never again to see a day like the one we have just lived through. He seemed relieved when he knew three natives were wounded and that the others had ceased to pursue us.

*October 26th.*—Being all in great want of rest, we lay at anchor the whole day. I was obliged to stay in my berth; I had a severe bilious attack.

*October 27th.*—This morning, before starting, we saw a score of natives on the left shore. They were all painted black, and adorned with white feathers; they were not armed, but had something white in their hands, which they waved, with gesticulations and shouts. One of them had an oar belonging to a canoe, and held it high up, but we did not see any canoe. He shook the oar in a meaning way, which action was repeated several times, and another native did the same. We could not discover what they meant. From their proximity to the spot where we found our boat, there is no doubt it was taken possession of by these people, and that they have perhaps in some way caused the death of our Chinamen. As these

natives were apparently defenceless, yet seemed to be trying to attract us, I thought they did this in order to traffic with us, and that the barter might end in our sharing the fate of the Chinamen. When I reflected they had probably killed these poor men, I refused to hold any intercourse with them, and fired two bullets almost at their feet. However, after the first they did not wait for the second, but all hid themselves behind trees. Only one man remained, and he kept up a series of grimaces until we were out of sight.

Now we are at anchor beyond Ellangowan Island. The whole line of country shows traces of the presence of natives, and we saw columns of smoke everywhere. When we re-enter the thickly wooded part of the country, which we have always found uninhabited, perhaps we shall have some peace.

*October 29th.*—Yesterday we rested; to-day we continued our voyage, without seeing any fires or smoke, or any deserted villages. We are again in the beautiful Papuan forest, as we are informed by the notes of the hornbill, the cockatoo, and the bird of paradise.

*November 2nd.*—Although we have travelled many miles since the 29th of October, we are still far from the sea, and judging from the quarter the wind blows from, it will not be easy to continue our journey towards Kataw. On arriving at Kiwai, therefore, seeing that the place abounds with game, we resolved to remain for some days, to lay in provisions for the time we might be obliged to spend at Mibu, where there is no game. In order to give an idea of the resources of this

place, I subjoin a list of the birds which we killed in one day.

A full-grown cassowary; a beautiful specimen; the colours of the bare part of the neck very bright.

Three *Gouras*; four *Talegallus*; four *Megapodius*; a *Buceros*; three *Carpophaga rufiventris*; three *C. Mülleri*; a large *Ardea*; two large *Megacrex inepta*; one *Harpyopsis*; two *Calcophaps margaritæ*; two *Calcophaps crysolora*; three kingfishers; one *Ptiloris*; one *Eutrygon terrestris*.

*November 8th.*—After many trifling mishaps, we have at length anchored in front of Para village, Kiwai Island, about half a mile distant from the village. We left our last night's anchorage near Attack Island this afternoon. To the boisterous south-east wind succeeded a north wind. A short time after our departure a fearful storm, with thunder and lightning, came on; two men being ill, I was obliged to stay at the helm, while Bob occasionally took soundings. At about half-past six we arrived before Kiwai Island, but it rained so heavily that it was impossible to see land; and on account of the darkness, and the water which the high wind dashed in my face, it was also impossible to make use of the compass. The lead reported favourably, however, and we allowed ourselves to drift with the current, but unfortunately too quickly. We did not apprehend any danger, thinking we should be able to keep to the deep channel; but Bob suddenly called out "three yards, two," and in a moment the "Neva" was on a sandbank. We tried to get off, but in vain. The tide was ebbing, and

soon we had but a few inches of water, and the "Neva" had to be propped up with the oars planted in the sand. At about seven o'clock, the rain subsided a little. The natives of Para saw us, appreciated the position, and came to the bank, dancing like demons, and waving their torches, which spread a lurid light around, illumining the shore and the houses near. We can hear their drums and horns, which are probably announcing our arrival, and also our dangerous position, to the other villages. The natives have kindled large fires; and little by little, all along the island new fires are appearing, and the drums close to us were answered by other drums at a distance. We await their attack for to-night, and shall certainly need to be on our guard. We are only five, and two are ill! I might aptly quote the proverb, "Out of the frying-pan into the fire."

We resolved to leave Attack Island, on account of a great number of natives passing us in their canoes, six hundred yards from the "Neva." They were apparently unarmed, and perhaps they had not seen us, but we thought they were meditating a night attack, and we set off. Now we are in a far worse condition.

*November 9th.*—At the rising of the tide the "Neva" floated, and we all breathed freely. It was impossible to start at once, because the engine was not ready; and besides, it would have been imprudent to set out in the darkness. However, when I saw the "Neva" afloat, I roused the engineer, and begged him to be ready with the ebb-tide. He called me at dawn, and to my great astonishment I saw near us a large sand-

bank. I let down the lead, and found only two feet and a half of water. I called the other men, and two of them went to sound fore and aft; but no greater depth was found. We were obliged to prop up the "Neva," as she was in danger of falling over on her side, for the tide was ebbing. At 7 p.m. the "Neva" was high and dry, about twenty yards from the nearest water.

At break of day, the sound of horns and drums, summoning the natives to assemble, broke the stillness. A number of people were on the bank in front of the village, getting ready their canoes, of which there were fifteen or twenty, or perhaps more. Two very large boats were within sight—so large, that at first we thought they might be European boats. One of my men persisted doggedly in declaring they were from Somerset; but when they came nearer, he owned he was mistaken. When these canoes, filled with men, reached the village, two small canoes, one with three men and the other with two, were paddled towards us; but we are separated from them by a sandbank.

What did the natives mean? They had evidently come to ascertain our numbers and our position; they were spies. The sounding of the conchs and drums, that evening dance, the fires lighted to summon the men from afar—all was enough to convince us that their intentions were not amicable. It would be too dangerous to await their arrival, to see whether their intentions were good or evil. They must not see how few we were, and how deplorable was our real condition. If one of them had cut the ropes which steadied the "Neva," it would

have been all over with us. They must not find out whether we were there willingly or against our inclination. There they were, on the other side of the sandbank, trying to scale it; we had no time to lose if we wanted to stop them. They were about four hundred yards from us. A bullet whistled in their ears and above their heads, and they suddenly jumped out of their canoes into the water. Another bullet struck the water in front of the canoes, and rebounding, passed beyond them. The five men were still in the water, and did not seem to have courage to come out. We heard cries and laughter from the village. One after the other, the men came out of the water and began to row towards us. Again a bullet struck the water, but they did not appear to be afraid. I fired again, but what I hit I do not know. All plunged down again, and after a few minutes they entered the canoe and rowed hard towards the village. As soon as they arrived the cries ceased, and the noise of the drums and conchs was heard no more. The natives gradually withdrew to their houses and villages; the two big canoes were rowed away, and quiet was restored. Only three or four men remained on the bank, observing us. Thus the danger passed away. We were ready to defend ourselves; and if they had come, determined to risk their lives, we might have made them pay dearly for their foolhardiness, and sold our own lives dearly; but we might have succumbed to numbers. Thank God, we were successful; and in protecting ourselves, we endeavoured to do as little harm as possible.

When the danger was over we went to breakfast with good appetites ; and after walking up and down on the sandbank, we waited for high tide. About 3 p.m. we were out of danger, and we cast anchor at Runcie Island, sheltered from the south-east wind.

*November 11th.*—Yesterday, for several reasons, we were obliged to lie at anchor. We saw neither canoes nor natives. This morning, however, when we were intending to depart from Auti, a canoe came towards us. I fired in the direction of the canoe, and that was enough to make the owner retire. We do not know how many days we shall remain at Mibu, and therefore I think it as well that the natives should be ignorant of our numbers. We tried a new route to Mibu, passing between Allen, Hixon, Robertson, and Onslow Islands, and New Guinea, instead of going by the old way, between these islands and Kiwai Island. We found a channel almost all the way, seven or eight yards deep at low tide as far as Mibu Island, and therefore I think we should do best to avail ourselves of this passage. We must enter it at its wide mouth between Mibu and Kiwai, and crossing the great channel of Mibu, follow thence this new course. A shallow part to the south of Mibu prevents a direct entrance. Mibu will some day be a magnificent port, sheltered from every wind. Its waters appear like a lake, of rectangular shape, and being seven or nine yards in depth, can harbour ships of large tonnage.

*November 12th.* We remain at anchor for two reasons ; first, because the wind is too high and



boisterous; secondly, because we all want rest, being more or less invalided. Our legs and feet are fearfully swollen; the engineer's and Bob's feet are so swollen that they have lost the form of human feet. Jack feels very weak, his back aches severely, and he is overcome by continual drowsiness, like lethargy. I fear he is attacked by the *Beri-beri*.

I observe here the passage of thousands of Ibis morning and evening (*I. strictipennis*). They fly towards the north at low tide, and to the south at high tide; whither they are going, I do not know. Although my men are ill and weak, they have strength enough to annoy me with their quarrels, and continual complaints. I do not know what would happen if we were obliged to stay here long. I was obliged to reduce the allowance of meat from three times to twice a day, and this occasioned much grumbling; I cannot make them understand that it is better to have meat twice a day for ten days than to have plenty for six, and none at all for four. They think only of to-day, and let to-morrow take care of itself.

*November 14th.*—To-day, I discovered that the men had opened a box in the night and stolen some provisions. On their return from the land I reproached them with their theft, and a quarrel took place, the upshot of which was that they told me they would leave the "Neva." I answered, if they wished to do so I should not prevent them, but that on my arrival at Somerset I would report them as deserters. It appears they had come on board prepared. The engineer told

me that many days ago Bob had wanted to hasten our arrival at Mibu, and that he believed they intended to desert. Lest they should desert at night, and leave me and the engineer alone, I thought it would be better if they went away in the daytime, and I hoped to persuade Tom at least to stay with me. While they were packing, I spoke to him in French, and persuaded him to stay on board, by showing him what danger they must incur, and the punishment to which they exposed themselves by leaving the "Neva" under such circumstances. I spoke in the same way to the others, but in vain; that evening they went away in the canoe. We are now reduced to three men, at 150 miles from Somerset, in the midst of a country thickly populated with savages. We three are all in indifferent health; but, considering all that has happened, I have no reason to complain, and I believe our condition is improved. We need not fear that the men will run away some night with the arms and the provisions we still have; and above all, Tom, who is with us, is really necessary to us. I am accustomed to do everything on board, and am now cook, steersman, engineer, and captain, by turns. The only thing in which I have yet failed is wood-splitting. At the first trial I hurt my leg severely, but if it becomes necessary, I venture to say I shall manage wood-splitting also.

We are now free from the chief dangers; from the natives we have little or nothing to fear; and by watching constantly, to avoid ambuscades, we can keep them at a safe distance. If we are prudent we shall not sail until the

sea is calm ; and as we have doubled our rations, we need not be in a hurry. The most difficult part of our voyage, is from here to Parama, and from Parama to Yarru, and if we can avoid the dangerous banks, we shall easily reach Moatta, and thence without difficulty arrive at Tawan, where the teachers will help us.

*November 15th.*—This morning we saw six canoes passing at a distance, with several people in them. God only knows what has become of Jack and Bob, if they were found by the savages.

Nothing remarkable to-day, except the passage of some dolphins.

*November 18th.*—We have cast anchor at Parama Island, having crossed the channel to Mibu without any accident. To-day I have been captain and steersman ; we accomplished all our work, and this night we feel pleased with ourselves. We journeyed partly by sail, and partly by steam, and got on better than when we were a larger number. Every one did his duty, and thus we avoided the danger of running on the banks, which had happened to us before. Yet the voyage was not without its vicissitudes. For about an hour and a half the soundings only gave notice of four feet of water, and every minute we dreaded running aground on the sandbanks. But God helped us. We believe we saw to the south of Mibu a European sail ! Six months all but a day have elapsed since our entrance into the Fly River ; we entered it on Sunday, and left it, the same day, six months later ! How long, and at the same time how short, these months have seemed ! How many events and dangers in so short a space of time ! We were

ten on board at our departure, and only three on our return. Two are dead, three run away, and probably dead; and we know not the fate of Jack and Bob; but whatever their end may be, they have deserved it, for they are the cause of many of our misfortunes.

At last we are out of the Fly River, and I have said farewell to it for ever. I am quite tired of it. I loved it; I still love it; but a long stay might destroy this affection. In its neighbourhood I should recall too often the anxieties and misfortunes I have endured there; far away, I shall remember only its beauties, its riches, its fine forests, its magnificent birds, my pleasure when I obtained fine specimens of birds and plants. When out of sight, I can think of it with affection; looking at it, I should come to hate it. Fly River, farewell, for ever!

*November 19th.*—So much of our voyage over! We have reached Yarru, and cast anchor. We started from Parama with a favourable wind, but it did not last, and before we arrived here the “Neva” showed us she had not forgotten how to roll, even with little wind. We were lucky enough to cross without accident, and without running on any sandbanks. We had to use our sails. Probably we shall not be able to go on to-morrow, because the engineer and Tom are both ill. I landed, to get a fine orchis, which I have only seen on this island. I did not succeed in taking one of the kind to Sydney last year.

Last night I was awakened by Tom. He had heard a sound like the voices of natives, who seemed to be coming towards us. Parama Island

has an ill name, for some years ago the natives killed an entire family of teachers. The unusual hour, 1 a.m., and the place, suggested to me that I had better not wait to see the people whose voices we heard; and I fired off some rockets in the direction of the noise, and afterwards discharged my gun several times. Nobody was seen or heard afterwards. At daylight we saw the traces of several people, and their fires were not out. Probably those natives whose voices we heard last night, had encamped here without being aware of our presence.

*November 21st.*—I have celebrated my birthday by doing duty as engineer. On account of the gale we were obliged to shift our moorings, and I took the engineer's place, as he was ill. Tom being at the helm, I had also to look to the soundings.

After having killed several fish with dynamite, I began to reflect upon my birthday. Thirty-six years of my life are gone! The fatal point, which Dante calls the middle of the way, is passed. I have finished the ascent of the parabola, and am now at the beginning of the descent. Mounting is often tiresome, but descent is quicker, and it is very easy to slide. At the bottom is the abyss—the end, the rest. All that has a beginning must have an end, sooner or later. Time flies so quickly, that past and future often seem the same. Thirty-five years have passed like lightning, and with them ambition and illusions. The tree loses its leaves in autumn; the season of flowers and fruits is over; for man, spring never returns. I see the fallen leaves, but the flowers

and fruits, where are they? The tree is old, exposed to every wind, buffeted by the storm; it has stood firm until now, but how will it resist storms for the future? There is a time for its falling, and giving back to the earth what remains of it.

*November 22nd.*—I think some among the fish killed yesterday were poisonous, because we are all suffering from colic. Were it not for this, perhaps we might sleep to-night on Kataw River.

*November 23rd.*—Although we are not yet quite well, we took advantage of the tide, and of the engineer's improved health, and got on as far as Moatta, having cast anchor in the Kataw. The natives tell me Jack and Bob were found at Waighi, by the people of Kataw, and taken to Moatta. They added, that the men are now at Tawan, whither Maino accompanied them. They also said they had been robbed of all they possessed and otherwise ill-treated. But I believe very little of what they say.

*November 24th.*—Maino returned to-day from Tawan, and came on board to pay his respects. He confirmed more or less what we had heard yesterday about Bob and Jack.

Although we are in the Kataw, our troubles are not yet over. This night, at the ebb of the tide, we were on a sandbank, and had to prop up the "Neva." But during the day we had worse troubles. When Maino went away from us, I perceived that the "Neva" had drifted away from her anchor about a third of a mile. At the turn of the tide we endeavoured to get back to our first anchor-

age ; but not being able to tow the "Neva," the current drove her on a mud-bank covered with mangroves, and she was so entangled among the roots and trunks of the trees that, notwithstanding all our efforts, we did not succeed in getting her free. Luckily a canoe passed with some women, and I sent them to the village for help. Shortly after, Maino arrived with fifteen natives, and I promised to give them tobacco if they helped me to push the "Neva" into the water, as meanwhile it was half on the mud. We tried with the anchors and ropes without success. At last the natives proposed to go into the water, and push the "Neva" with their shoulders into the river. They tried, and succeeded. While I was in the boat, with eight or ten natives, and Tom and the engineer were on board surrounded by as many more, I thought how easy it would have been for the natives to seize our fire-arms and kill us. It would be unjust to them not to speak of this ; and I think it a duty to say how well behaved the natives of these parts sometimes are. They had a good opportunity to obtain what would have been riches to them ; and besides, they could have added our heads to those hanging on the doors of their houses. Instead of this, they were satisfied with the tobacco I gave them ; and now I feel secure on the "Neva," with my head on my shoulders, and without having lost anything in the confusion.

*December 1st.*—The beginning of the month is marked by the return of the ills from which we suffered during the whole of last week ; viz. diarrhœa, dysentery, fever, and dropsy. The

natives were at first rather troublesome. They could not understand that, being ill, we preferred to be left to ourselves; but I explained our wishes to Maino, and he arranged matters in such a way that now they only come when we call them. Besides, I cannot bear to see them so lazy, that not even the promise of a large quantity of tobacco can induce them to bring me any animals. They brought me one specimen, a fine serpent, much spoilt, which I had obtained from the bushmen the day I started from hence last year. This beautiful reptile is of a very light green colour. Dr. Mayer has described it, and calls it *Chondropithon azureus*. The skin of another serpent, the *Acrocordus*, is used by the natives to polish the tips of their arrows.

*December 5th.*—On this day, health and weather permitting, we took leave of our good friends at Moatta. This is my last farewell, and I felt sad. When I shook hands with Maino and the others, I felt the regret with which we part from friends. The calmness of the sea, a light wind, and a favourable current so helped us that in five hours we reached Tawan Island, which being a missionary station, we may call a civilized place, in comparison with the countries from which we came. We cast anchor to the north of the island, and were welcomed by Elia and his disciples as old friends.



## CHAPTER VIII.

Stormy weather—I resume European dress and go to church in the village—Hymn-books in the Saibai language—A sermon by Elia the teacher—The resting-place of Lochat—Farewell to New Guinea—Farewell to Nagheer—Christmas Day—Our bill of fare—New Year's Day—Mr. Preston ; his illness and recovery—Thursday Island—I appear before the magistrate—The investigation—Mr. Chester's behaviour—A churlish act—The "Cristoforo Colombo"—The "Garonne"—My prophecies and their fulfilment—A dangerous situation—Suspense and release—The conclusion of my voyage.

*December 9th.*—After the perfect calm which enabled us to reach this place, the weather became stormy again, and we are like prisoners in the island until the return of fine weather. In the daytime we go on land, and pitch our tent under the shade of the cocoa-nut-trees ; at night we sleep on board. There is nothing to do in the island ; there are very few birds, and very few insects. The pigeons of Torres Strait (*Carpophaga spilorrhoea*) supply us with food. The natives bring us cocoa-nuts and water-melons ; we pass some hours together talking and laughing, and we feel grateful to them, for they relieve the tedium of our captivity. To-day, being Sunday, I dressed myself, for the first time for seven months, in European fashion, in

order to attend the church in the village. Elia the teacher read the service, and about forty people were present. They gave me a book of hymns, printed in the Saibai language. Many of the natives have learned to read from Elia, and I felt envious at seeing the natives read a book I was not able to read. I remarked, however, that the translation was not very correct, and that there are many words accommodated to the intelligence of the natives, which perhaps were impossible to translate. The translator sometimes employs English orthography, sometimes the phonetic system. Most of the natives can read the hymns. Elia preached a sermon. He seemed to me the true apostle of past times, the disinterested man who gives his life for his brethren. In this little church I felt religion speaking to my heart and mind—a sweet voice, to which I never gave heed in gilded dome or Gothic temple.

Of Elia's sermon I only understood the substance. He explained to the natives the presence of God in everything, and he used his hands and feet to make himself better understood. Pointing to the sky with one hand, and striking the earth with his foot, he proclaimed the presence of the Supreme Being in heaven and on earth. He also gave a lesson in geography, several times repeating the names Italy, France, Germany, the islands of New Caledonia, Fiji, Tonga, and Australia. I was surprised he omitted England, Russia, and Turkey. Afterwards, in his prayers, he added the names of Saibai, Moa, Mobiack, New Guinea, and the Fly River. I feel gratified

because he often spoke of Italy, perhaps on my account. I remember last year also the sermon was mixed up with geographical ideas, and I conclude this sermon is repeated every time a stranger arrives. Coming out of the church, I saw the place where Lochat, formerly Elia's companion, now rests in the sleep of death. Poor Lochat ! he reposes before the little church which he built with his own hands. A railed enclosure shows the place where his mortal remains are laid. Not a stone to recall his name to the memory of future generations ! Not a stone which might one day speak to the sons of these savages, of how they received from him the light which enlightens them, and brought them out of the utter darkness in which he found them ! Not a stone to preserve the name of him who for the first time brought them the light of civilization, and paid with his life for his apostolic zeal ! Let future generations bless the name of Lochat, and may the earth lie lightly on his remains ! Perhaps his immortal soul is yet living among his disciples, to guide them to good. If one day these pages are read, may the reader say a *Requiescat in pace* at the name of Lochat.

*December 15th.*—The recapitulation of the week is wind, wind, wind. My health, and Tom's, are much improved, but the engineer is worse. Some boats from Somerset passed this way, returning from exploring the Baxter River. Among the travellers was Mr. Chester, the magistrate of Somerset. Being unable to go to him, I sent to ask him for some provisions, and he kindly sent me six tins of salmon, two of sardines, and six

pots of jam. I knew Bob and Jack were in Mobiak Island, and that they had said I had killed two Chinamen, and had also said other things to my detriment. I am astonished that Mr. Chester, as a police magistrate, knowing I was not able to go to him, did not come to me to ascertain whether all that was said against me was true.

*December 19th.*—At last, on this day, at about ten in the morning, we sailed for Mount Ernest Island. In a short time we left Tawan behind us, with its inhabitants, of whom I took leave with regret and some emotion, for they are probably the last savages with whom I shall ever have intercourse. As we sailed on, the coast of New Guinea seemed to sink beneath the sea, and soon it was quite out of sight. Silently I took leave, with mingled pleasure and regret, of this land, to which I have devoted the last years of my youth, and to which I should have devoted all the rest of my life if circumstances had allowed me to do so. We got through a long day's work, and cast anchor at ten at night, in front of Bourke Island, after having run the risk of stranding on a coral reef. It was a miracle we got off safely.

*December 20th.*—After having made great havoc among the fish with dynamite, and having filled two barrels, to say nothing of a quantity which were lost for want of men to dive for them, we continued our voyage as far as Mount Ernest, which was only five miles off. Meanwhile I examined the fish I had taken, and I found some species quite new to me. I think dynamite is, for an ichthyologist, the best means to use,

especially among coral reefs, and the only means with which many species can be obtained. When we reached Mount Ernest, we found Mr. Jardine, the proprietor of the island, just leaving it in his cutter. Having exchanged greetings, we cast anchor, in order to take in wood and fresh water for the engine, that we might continue our voyage to-morrow towards Thursday Island, whither Somerset settlement has been transported.

*December 21st.*—To-day the sea was calm: its surface reflected all the objects near like a looking-glass, and allowed the eye to penetrate to the bottom, and contemplate the finest spectacle that can be seen by human eye. The beauty of birds, of butterflies, a hothouse full of lovely flowers, all excite our admiration, and make us sing a hymn in our hearts to Nature; but all the wonders of the earth put together cannot surpass the beauty of a coral reef, for there are plants, stones, and animals all at once.

What a marvellous work it is! Through how many varieties of form, of colour, and of matter, does the life of a polyp pass! It is plant, animal, and stone, at the same time. They are the work of nature, but they also create, if we may say so; humbly and silently they execute wonders, and the storms of the ocean have no power to arrest their slow, silent labour. Under the waves they are working, and laying the foundation of future continents. Here, in Torres Strait, they seem to have an especial command from Nature to fill up the space which now separates New Guinea from Australia, thus perhaps repairing the damage produced by some

former convulsion. Their work is slow and silent, but sure. Were it not for the hope of reaching our journey's end this evening, I should never have done contemplating these masterpieces of Nature. But the engineer's voice broke in upon my meditations, and as we were ready to start, I was obliged to go and help Tom to weigh anchor, and afterwards to take the helm. Far in the distance, we perceived some dark objects like clouds on the horizon. These were mountains and islands in the strait, which we have to reach. Farewell Nagheer! In a few hours we shall be at our journey's end.

The "Neva" disturbs the quiet surface of the sea, leaving a long track behind, and would seem in passing to arouse the sleeping waves. From time to time we look back, and see everything diminishing to our eyes. Farewell, Nagheer! We have turned the point: there is a black speck on the horizon. We shall sleep quietly to-night at last. Who can tell what are our different thoughts at that moment? They are broken in upon by the engineer's voice, more terrible than a thunderbolt, crying out that a tube of the boiler is burst, and we must go back! We were obliged to yield to necessity, and we cast anchor in the same place from which we had started. The engineer promises to be ready to-morrow morning, but as yet, at two o'clock at night, nothing is done; and, as he is suffering from severe pains in the stomach, I fear we shall not be able to start. It is indeed strange. We ought to have been at Thursday Island a month ago; but every time we approach it, an invisible hand seems to drive

us back. A few hours would have brought us to our journey's end: we had hoped to get there this evening; and now, the only accident which could happen, has happened, and we are here.

*December 22nd.*—The gale is fearful, and instead of starting we were obliged to seek shelter from the wind, and shift our anchorage, on account of the storm. The monsoon is blowing. Although we are anchored behind Mount Ernest (Nagheer), still the "Neva" is rolling so much that it is impossible to remain on board, and the waves threaten to spoil all my collection. Whilst Tom was baling the water out of the boat, he put his foot on a rotten plank, and it gave way. With great difficulty I mended it, so that we could use the boat; but it is not secure enough to be entrusted with my treasures, which, although in danger, are safer on board. The engineer is very ill, and I am afraid that if we are obliged to remain here long he will never see Thursday Island again. It may be easily imagined how this troubles me. Having heard of Bob's and Jack's accusations against me, I feel the life of the engineer to be doubly necessary, as he is the only witness who can contradict them. To-day, seeing him so ill, I begged him to relate to Moreman, a white servant of Mr. Jardine's, all that had happened, and to contradict what Bob and Jack had said.

*December 24th.*—The wind and bad weather continue, but fortunately, the engineer is much better.

I have been obliged to work at a new calling, that is, painting and mending the boat, to make it fit to use at Thursday Island, if it be in the decrees

of fate that we shall ever get there. From captain to common seaman there is but little distance; from seaman to caulker no greater; but I never thought I should be obliged to do this.

*December 25th.*—We have been camping these four days on the northern shore of Mount Ernest Island. Each of us chose a tree, to shelter us from the sun in the day, and the dew by night. Unluckily, the trees do not save us from the mosquitoes. The very fine sand, warmed by the sun, makes a soft bed. It is Christmas Day, and all being pretty well, we resolved to celebrate the festival as well as possible under the circumstances. Having given the boat its second coat of paint early in the day, I took up my gun, and made war on the birds. Poor things! It would have been well for them if that Christmas Day had never dawned. For their misfortune, and our good luck, Tom and I together brought home fourteen pigeons (*Carpophaga spilhorroa*) some *Pitta*, some small pigeons (*Ptilopus*), and other little birds. From caulking to sport, from sport to cooking—this has been my business to-day. We wished to celebrate Christmas Day, and I could not refuse my part. Let me, reader—if I have a reader—introduce you to our dining-room, under a tree, with a splendid view of the sea and the distant islands. White sand for carpet, and a mat for furniture. There is also a trophy of arms, and the feathers of the victims are scattered in beautiful profusion on the white sand. A *Ptilopus* and a *Pitta* have a place at our table; and although dumb witnesses, Tom has arranged them so well



that they seemed to be still living. Here is our menu:—

Soup—Riz, au foie de volaille, (made of rice and bird bones.)

Fish—Salmon.

Poultry—Roast pigeons.

Entrée—Petits oiseaux au gratin.

Salad—Yams, in salt water.

Sweets—Pudding of gourd, cocoa-nut, flour, and yams.

Wines—A bottle without a bottom, but with a fine label.

#### *Desert.*

Melons, cocoa-nuts, mango, and good humour.

The day was beautiful, the temperature pleasant (the thermometer only reached 87°), and the wind fresh and light.

*January 1st, 1878.*—How unpleasant is the beginning of the new year! This morning we got up as usual a little before daybreak. I had proposed to amuse ourselves as we had done on Christmas Day, therefore I took my gun. Tom went out at the same time, to get the usual supply of fresh water, which is about a mile from our camp. I left Mr. Preston to watch over our property, and then set out. I was fortunate, and in half an hour I had shot five pigeons, with which I came back. Tom was already there, and, coming to me, he said, "Mr. Preston is dead. I have called him twice, but I could not get an answer from him. I poured some water on his face, but I could not rouse him."

"It is impossible, he is not dead," I said, "he

must not die. You are a fool!" I ran to the tree under which Mr. Preston lay. He was insensible, his tongue hanging between his teeth, and his mouth marked with bloody froth; but his heart was still beating; he was not dead. Being unable to do anything for him, I went to Mr. Jardine's house, he having arrived here yesterday morning from Somerset, and requested him to come at once and see Mr. Preston. Mr. Jardine is a justice of the peace, and I was anxious he should hear from the engineer, before death came, that I was innocent, and that the reports spread by Bob and Jack are calumnies. I returned to our camp with Mr. Jardine, and found Preston had recovered his senses. He showed us his tongue, which was hurt by his teeth, thus explaining the bloody froth I had observed. I said to him,—

"Mr. Preston; Mr. Jardine, a justice of the peace is here; please answer before him the questions I shall put to you. You are dying; in the name of God, tell the truth before Him and Mr. Jardine. Is what Bob and Jack say, that I have killed two Chinamen, or been the cause of their death, true or false?"

He answered, "Upon my honour, before God and Mr. Jardine, what they say is false."

"Is it true, that not only I never sent Bob and Jack away from the ship, but, on the contrary, endeavoured to dissuade them from leaving, and threatened to report them as deserters, and not to pay them their wages?"

He answered, "It is true."

"Is it true, that, seeing them resolved to go, I tried to keep them at least until the following

morning, promising them arms, provisions, sails, and oars, in order that they might reach Moatta in safety ? ”

He answered, “ It is true.”

“ Is it true, that when they went away, and were already some distance from the ‘ Neva,’ I asked them three times to come back, and they did not give any answer ? ”

He answered, “ It is quite true.”

“ Is it true that during the voyage I always took care of the health and the welfare of my people, and, although strict, I always treated them kindly, and often exposed my own life to spare them ? ”

Mr. Preston said, “ Upon my honour, that is true.”

I was satisfied, and from my heart I thanked God that Mr. Preston had spoken once again. I did not question him further, lest he might be tired ; but knowing he had written down all that happened every day on board, I asked him to allow Mr. Jardine, as a justice of the peace, to take possession of his journal. He consented, and Mr. Jardine and I went on board the “ Neva,” where the magistrate sealed up the papers, allowing me to keep them that they might be shown to the police magistrate at Thursday Island. When we returned on land, I went home with Mr. Jardine, and afterwards went to see Preston ; he had fainted twice, according to Tom, but he then seemed to be better.

It is now 9 p.m. Mr. Preston is better than he was this morning.

*January 2nd.*—Thank God, the engineer is a

great deal better, and I have some hopes he may recover. The quinine I gave him seems to have produced a good effect; he took it in moderate doses every three hours, and I made him observe an exact regimen. The weather seems to change, and is becoming calmer. Oh, how I long to reach Thursday Island!

*January 3rd.*—Last night I thought my last hour had come. I was attacked by such violent pain that I was unable to move. I do not know what could be the cause. I believe only poison could produce such violent pain. But what poison? That is the question.

This evening Mr. Preston and I are both better. Tom has an attack of fever. Although I am not quite well, I am still the strongest of the three, and I nurse the other two invalids.

*January 4th.*—To-day, the sea being very calm, and Mr. Preston well enough to be carried on board, I resolved to try for the last time to get to Thursday Island. We carried firewood on board, as well as all the articles we had on land; and having got the engine into working order, we were ready to start.

Tom is at the helm, and I have taken the place of the engineer, for he is still too weak for his work. As we were crossing a safe part of the sea to-day, we were able to do without the lead as on preceding occasions. We set out about half an hour after midday. The firewood was very good, and while taking every precaution, we put the "Neva" to her full speed. In three hours we cast anchor safely at Thursday Island. I must say we had a strong current in our favour, but the "Neva"

did wonders, making ten miles an hour. On starting I said to my crew, "We shall be at Thursday Island before night, or never!" I thought I would rather let the "Neva" sink than go back, as I did on the 21st of December. But at last we are at Thursday Island, and I have quite forgotten what I said and thought this morning.

We landed, in order to buy some clothes, in which to appear with propriety to-morrow before the police magistrate.

*January 5th.*—At ten minutes past ten this morning, followed by Mr. Preston and Tom, I entered the office of the magistrate of Thursday Island. He received me very coldly, and after the usual formal greetings we went to business. He told me Bob and Jack had laid depositions against me before the police magistrate at Somerset. Mr. Chester, the police magistrate, read their depositions, and asked me what I had to say in answer. All I could say was, that the whole was a tissue of lies and exaggerations, and that I intended to accuse the two men of perjury and robbery, and many other offences. The magistrate then questioned Mr. Preston, who, after having taken the prescribed oath, declared all Jack and Bob had said against me to be false and exaggerated. Having heard Mr. Preston, the magistrate refused to hear Tom, whom I had brought as a witness, and only asked him whether Mr. Preston had told the truth. Tom confirmed all he had said. As to the counter-accusation I intended to bring against Jack and Bob, the police magistrate postponed hearing that until Monday.

*January 7th.*—To-day I accused Bob, Jack, and

Tom, before the magistrate, of theft, rebellion, and mutiny, and Bob and Jack of desertion. I claimed impunity for Tom, in order that he might give evidence. The chief charge was desertion. I must here complain of the partiality shown by the magistrate; he did all he could to prevent my witnesses from speaking, forbidding me to put the most important questions in the case, on the ground that they were in fact suggestions. Not knowing how to act, I told him that if he desired it I would bring the matter before another magistrate. After this he became a little calmer, and first, through the evidence given by the witnesses, and secondly, through the confession of the accused themselves, they were convicted. The magistrate dismissed us, promising to pronounce sentence the next day.

*January 8th.*—The magistrate to-day sentenced Bob and Jack to prison for three weeks for desertion, and to the forfeiture of half their wages. On the second count, mutiny, he still tried to acquit them, saying it was necessary to prove the charge, yet preventing the witnesses from speaking, and, on the other hand, giving full liberty of speech to the accused. At last, however, such was the evidence, that he was obliged to find them guilty, and sentence them to four or five weeks' imprisonment. In the afternoon the charge of theft was discussed, and the scenes of this morning and yesterday were repeated. This time, also, I succeeded in proving the men to be in fault, and both were sentenced to five weeks' further imprisonment; that is to say, they were found guilty on all three counts, committed to prison for sixteen weeks, and condemned to forfeit half their

wages—a light punishment indeed for such crimes. Each of them had endangered our safety and the safety of the ship! I protested against the leniency of the sentence, and told the magistrate I should protest through my Consul to his government, that is, the Government of Queensland. When the sentence was read, he asked the prisoners whether they had anything to say? They answered, “No.” I said, “Mr. Chester, will you allow me to put some questions to the prisoner Bob, in your hearing?” He consented, and I said, “Bob, you are a rascal and a liar, and you are going to prison because you are; yet I have known you a long time, and I believe you would have been well behaved, had it not been for Jack. I suppose there is still some good in you, and I believe you will speak the truth, at least for once, and will answer frankly what I am going to ask you. Will you tell the truth?” Bob answered, “I will.”

“Well,” said I, “is it true that I killed the Chinamen, or caused their death?” Bob answered, “No.” “Bob, say, is it true that I have treated you all alike as friends, that I have always taken care of you, that I spent nights without sleep that I might tend you when you were ill?” Bob answered “Yes, it is true.” “Bob, is it true that when in the greatest danger from the natives’ arrows, I always ordered my men to hide, and not to expose themselves, but exposed my own life on every occasion.” Bob said, “It is true.” “One more question. Do you not feel in your heart, that to come to Thursday Island and to Somerset, and accuse me so falsely, is a bad action,

and an injustice to me?" Bob answered, "Yes, I see that now, and I am very sorry." "Well," said I, "I pardon you; may God likewise pardon you the harm you have done me."

Thus my journey of 1877 ended, before the magistrate. On the day of my departure I reminded him of my answer to his own words, recorded in these pages on the 2nd of May: "If these men should ever deserve death, I will bring them back to you to be hanged." To-day, before taking leave of him, I said, "Mr. Chester, these men deserved death several times when we were on the Fly River, but I kept my word, and have given them up to you; now it is your turn to do your duty."

When we had done with this wearisome business, the engineer left the boat, and went to live with a storekeeper. For a few days the weather was fine; but after the monsoon began, the rains set in, and life on board the "Neva" was tedious enough. When it was raining in the night, Tom and I, instead of sleeping, were obliged to bale out the water, and my collections of birds were in great danger of being spoiled. I asked Mr. Chester's leave to take shelter in a shed where one or two government boats are kept, as, besides the risk to my property, I told him how bad our health was. But he refused me permission to use the shed until the steamer arrived which was to take me to Sydney, and, with great prejudice to my health, I was forced to pass eighteen days on board the "Neva," in the worst season of the year, in Torres Strait.

*January 19th.*—This afternoon I was sitting in



front of a small hut when the mail steamer arrived from Singapore. My health had been very poor all day, and I hardly felt any interest in seeing the "Brisbane," which had to take me to Sydney, enter the harbour.

As she would not leave till the morrow, I made no haste to go on board, but from my place watched the landing of some among the passengers. Presently I saw a boat coming to the spot where I was.

How shall I tell what I felt when I found that the passengers the boat carried were two of my best friends, Dr. Beccari and my cousin, Capt. Enrico D'Albertis?

It is more easy to imagine than to describe my feelings at seeing the two friends I was not even thinking of at that moment, in this strange island. They were paying a visit to Australia, and I should have liked to make the trip down to Sydney with them; but I am obliged to part with them, for the "Brisbane" could not take the "Neva" on board.

*January 20th.*—My cousin and Beccari left this morning. They told me an Italian man-of-war is to pay a visit to this island.

By good luck the Italian man-of-war, the "Cristoforo Colombo," Captain Count N. Canavaro, arrived at Thursday Island on the 20th January. Having heard from me an account of my travels and misfortunes, the Count thought it his duty to institute an inquiry into my conduct, and he was verbally assured by the magistrate there was nothing to be said against me. As I had informed the Count that the magis-

trate had refused me a copy of the proceedings, he asked for one, or at least to have it read by the magistrate. For some reasons, probably personal, the magistrate refused, alleging that all the documents had been sent to Brisbane. This was not the case; the book in which the proceedings were reported never left Mr. Chester's house. For what reason Mr. Chester dealt so harshly with me I do not know, especially as he had received orders to help me from the Government at Brisbane—to whom I return thanks, not for benefits received, but for their intention to be useful to me. Whatever may have been the motives by which Mr. Chester was guided as a magistrate and a gentleman, I can say I have not given him any cause to act as he did. If I was in fault, he ought to have punished me; if I was not, I had a right to be protected; while as a gentleman he ought to have been more considerate.

The man of war, "Cristoforo Colombo," was going to Sydney, and I accepted most gratefully Count Canevaro's offer of a passage in his ship.

And now, while writing these pages, I must pay a well merited tribute to the Italian Government, which came to my aid first, with the "Vittor Pisani," in 1872; secondly, in 1878 with the "Cristoforo Colombo." I feel most grateful to Captain Count Lovera, and also to Captain Count Canevaro, and their officers, for the care and kindness which I received on board of their respective ships.

On the 4th May, 1878, I went on board the steamer "Garonne," a beautiful ship of 4000 tons, bound for London.

I thought at last I was at the end of my adventures, but on the same day on which we greeted the smiling shores of Port Jackson, I had a presentiment, and I uttered a double prophecy in the smoking-room! A prophecy at the beginning of a voyage, and in the smoking-room! The first prophecy was, that although the voyage ought to be finished in forty days, we should not reach Plymouth before the 1st of July. The second was, that we should not arrive without some mishaps. Of course every one took my prophecies as a joke. On the evening of the 5th or 6th of June we came in sight of the coast of Africa, near Ras Afun. One of the passengers said to me, at 7 p.m., patting me on the shoulder, "Well, Mr. D'Albertis, to-morrow we shall be in the Gulf of Aden. One of your prophecies is fortunately not realized." I answered, almost without thinking, "Wait until you are at Plymouth." At 10 o'clock the same evening, the "Garonne" was stranded on the shore of Ras Afun. Next day a boat with some brave men was sent to ask for help, and on the day after, a boat with nine men was sent on shore to explore the locality, and ascertain with what kind of people we had to deal, especially as it was rumoured in the ship that the coast was inhabited by cannibals. I was one of the nine; and notwithstanding the great waves which were breaking upon the shore, it was not difficult to land. We found we could obtain water by digging in the sand four or five feet deep. We met with several natives, who told us they were Somauli, and being few in number they were very

civil. There were several women and children, who shook hands with us, and, according to their custom, made many salaams, touching the forehead with the hand. Who will believe that in these people I seemed to be renewing my acquaintance with the natives of New Guinea, especially with those of Torres Straits! Such is the impression they made upon me. I observed the true negro type, which differs from them in many respects; but if several of these natives were transported to New Guinea, they might be mistaken for aborigines of that country; those with the receding forehead, aquiline nose, and moderately thick lips,—who have curly, but not woolly, hair. They belong to the type I called Arab, when speaking of Moatta and Tawan—the type which, although not predominating, I have often found in New Guinea, and I discover them to-day on the shores of Ras Afun. Those I saw to-day remind me of the inhabitants of Prince of Wales Island. There are varieties in the colour, but the type I have observed is the same. This discovery is of such interest to me, that I cannot regret the chance which stranded us on Ras Afun shores. To return to the vessel was not so easy; the lifeboat capsized, and we were wet through. Fortunately, when the boat upset we were not far from the “Garonne,” and seven out of nine of us were saved; unhappily, two were lost. For them, my prophecy came only too true.

The following day was Sunday; the sea was more tempestuous, owing to the increase of wind, which drifted us towards the coast. The anchor cables were so tightly stretched, that I momentarily ex-

pected them to snap. More than a thousand natives had collected on the beach since yesterday. This morning, when the sun rose, its rays fell upon the points of their spears ; we could also see a great number of guns. The captain told us all hope of saving the vessel was lost, and we waited with intense anxiety for the snapping of the anchor chains. How many of the passengers would hear their death-knell in that sound ! But we are not to die until the appointed time, and our last hour had not yet come. In consequence of the increasing storm, the "Garonne" began to move, and several advised another attempt to save the ship. All the passengers lend a hand, the engine works too ; the "Garonne" moves—hurrah ! The "Garonne" continues its course ; the "Garonne" is saved ! Hurrah ! hurrah ! hurrah !

The natives who were congregated on the shore, no doubt in hopes of booty, did not see us depart with much pleasure ; they even attempted to keep us by hanging on to the rope which had been lowered from the "Garonne," so that it was necessary to cut it. My second prophecy was also realized, since in fact the "Garonne" only arrived at Plymouth on the 1st of July. And here my voyage came to an end.

## A SUMMARY OF MY OBSERVATIONS DURING MY JOURNEYS IN 1876, 1877.

STARTING from Somerset, almost the extreme northern point of the great Australian continent, and steering due north across Torres Straits we shall approach a low-lying country, called by the natives Dandai. This is not New Guinea, which is, nevertheless, divided from Australia only by a channel about eighty miles wide.

The depth of this channel, separating the two largest countries of Oceania, is not above twelve fathoms.

At distances of exactly thirty miles from each other, there rise up in these straits small mountainous islands, which seem like the links of a chain connecting Australia with New Guinea.

The traveller finds himself considering whether, at a former period, these two lands were not one continent only. He may even imagine that a day may come when they will be again united.

Geology, \*zoology, and botany perhaps may some day tell us with certainty the past history of these countries.

Torres Straits are peopled with coral insects, which, with slow but ceaseless labour, create new lands, new islands, and even dams, which are destined to intercept the sand washed down by numerous rivers into the straits. We may

therefore expect the gradual filling up of this narrow channel, and, consequently, the reunion of these two immense islands.

The great coral bank, marked on the map as Warrior Reef, is separated from New Guinea by a creek of only two or three miles in width, and two or three fathoms in depth. We can thus actually watch this narrow channel in process of filling up with the sand brought down by the rivers. The polypi of Warrior Reef have but to continue their advance a little longer, and they will reach the surface of the water. The gradually-accumulating sand will allow certain plants, especially the mangrove, to take root, and thus will be formed another of those low and arid islands of which there are already so many in Torres Straits, and New Guinea will be both increased in size and the configuration of the coast will be changed.

But, as these coral reefs in Torres Straits are situated at short and almost regular distances, although each one may be considered as a separate centre of insect toil, still all tend to one common end, i.e., the reunion of Australia to New Guinea.

I have given Warrior Reef as an instance; but I might say the same of Saibai Island, of Yarru Island, of Bristow (Bobo), of Bampton, and of others to the west of Tawan Island.

The extremely flat shores along the Kataw River and along the Fly, and their sedimentary formation, indicate that something of the kind has already taken place. The marine shells that I myself found in the heart of New Guinea, and almost at the base of the highest chain

of mountains in that great island, show that all the low parts were once covered by the sea. The low, small hills, rising from the vast plains, are like the little islands in Torres Straits. The exploration of the interior of New Guinea must give us valuable data from which to prove these facts, and I do not hesitate to affirm that botany will largely aid geology. The traveller, even though ignorant of the former science, cannot fail to observe the varied aspects of vegetation in this country, and the difference between that of the low-lying parts and that of the hills. Nor can he do otherwise, in presence of such wonderful contrasts, than recur to the active causes of these differences; and the change of level to which those lands must have been subjected at a comparatively recent date will at once occur to him as a primary cause.

Granting the hypothesis of the coral-reefs, the sand-banks, and the conjunction of New Guinea with Australia, the new-formed earth would begin to be inhabited by animals and plants migrating to it, and especially by those from the two great islands.

The present islands of the straits would, however, retain their aspect, as the hills in the interior of New Guinea, which we believe to have been islands in former ages, retain theirs.

The study of the fauna of this central region of New Guinea will furnish other most important facts to help us to the conclusion towards which we are advancing. Let me state now, by the way—what the ornithological collection made



during my travels of 1876 and 1877 tends to show—that the Arru Islands were once united with each other and with New Guinea. The *Casuarius Beccarii*, which at one time inhabited the Arru Islands and the regions of New Guinea watered by the Fly, not to speak of many other birds, reptiles, and insects, will at once afford very important support to this theory, just as the existence of echidnæ, recently discovered on the Arfak Mountain, on the river Fly, and at Port Moresby, is a fact of the utmost importance to prove the continuity which must formerly have existed between New Guinea and Australia. I will now lay geology, zoology, and botany aside for the present, and in a few words give a sketch of the country which is watered by the Fly.

This river, which is probably the largest in the island, rises near its centre. Its source is in the high mountains that cross New Guinea from west to east, lat.  $5^{\circ}$  S. and long.  $142^{\circ}$  E. of Greenwich. It winds between low hills, gradually increasing in height towards the north; and then, taking a somewhat westerly direction, it returns to long.  $141^{\circ}$  E. of Greenwich, and then turning again to the east, it winds through a flat country, and discharges itself into the sea in lat.  $8^{\circ} 45'$  S., long.  $44^{\circ}$ .

The mouths of the Fly form a wide delta and an archipelago of islands, some of a considerable size, but all flat. The chief among them is Kiwai Island, at the river mouth. This is densely populated.

All these islands are clothed with thick forest,

and abound in gigantic trees, especially a species of myristica, the canarium, the sago, the mango, the banana, besides many other garden plants under cultivation. The river shore is overgrown with nipa. Rhizophora, or mangroves, are few, and grow at the mouth of the river.

According to the natives, there is no fresh water in any of these islands: in the dry season, therefore, when the waters become brackish, the inhabitants are obliged to depend exclusively on cocoa-nut milk.

The soil of these islands is muddy, of a bluish colour, and evidently sedimentary; while along the river banks it is red or whitish clay, or soft sandstone, and in some parts even conglomerate, in which are large quantities of flints, quartz, and calcined stones.

In the sand there are also indications of gold, and loadstone.

Notwithstanding the comparative fertility of the above-named islands, I believe it would be difficult for Europeans to cultivate them. I do not hesitate to affirm that they could not live there without coloured labour.

This may be said of a great part of the plains watered by the Fly, which, being low, damp, and marshy, are ill-adapted for colonization by white men.

On the other hand, I believe that the mountainous region would offer great probabilities, if not a certainty, of success.

What is required is the union or association of native labour in order that the white man may profit by the riches of the country. It would be neces-

sary, in my opinion, that the natives, stimulated by our European productions, should be induced to work, and to produce on their side, for the purpose of exchanging with us; and this exchange, at first very trifling, would every year acquire larger proportions through the increased cupidity and growing wants of the natives.

In confirmation of my view, I can refer to the fact that at Kapaor the natives occupy themselves during a great part of the year in collecting nutmeg, massoi, the skins of birds of paradise, tortoise-shell, and mother-of-pearl, which they afterwards exchange with the Boughis traders, who visit their coasts every year.

A better system, in my opinion, would be to send out pioneers, whom I would call agricultural missionaries, to teach the natives to cultivate the earth by means of machinery, to sow and to reap, at the proper seasons for both, and to preserve those productions of the earth which they could bring to a sure market. Rice, cotton, tobacco, coffee, muscatel-nuts, &c., would very soon, there can be no doubt, richly repay the first cost. The massoi is known to the natives of the Fly. Cinnamon (*culit lawan*), ebony, sandalwood, resin (*dammara*), and muscatel-nuts would soon become articles of most lucrative exportation.

In order that the natives might learn to prize labour for the profit it brings, they should be free to treat directly with the buyers.

These would be the captains of trading vessels, or special agents, who would visit the natives annually at the nearest and most convenient station.

The heavy rains during the months of December, January, February, March, and April, may render the ascent of the river difficult and dangerous; but during the other months of the year navigation would be extremely easy, and with but little depth of water the centre of the island could be attained.

In the dry season the heat is not excessive. The readings of three thermometers on board the "Neva" were 85° maximum heat and 76° minimum, during the nights in May, June, July, and August; while in September, October, and November they only recorded 88°, and on a few rare occasions reached 95°—falling at night on one occasion to 69°.

July and August are the driest months.

In October and November the rains, although frequent, are not continuous, and the sky is quickly clouded over and then becomes clear as quickly.

At the mouth of the river the population is extremely numerous, then over a large tract there is none, and natives are found again in great numbers when the country becomes hilly.

The inhabitants do not live near the river, but come down to it only during the dry season, in pursuit of game from the mountains.

Judging from those I saw, and from my experience of all the people of the Fly, they are more barbarous and savage than any others inhabiting this great island. The race to which these people belong is not known, but it is certain that many races or varieties have come in contact, and they are more or less mixed.

A glance at the different types of skulls col-

lected along the river will be sufficient to convince the reader of this.

At Kiwai we have a prognathous people with small round heads, low and very narrow foreheads, zygomatic arch and upper orbits very strongly marked, and the temporal bones excessively depressed.

Near Canoe Island we found, at only fifty miles from Kiwai, a prognathous but otherwise completely different type; the skull flattened at the top, and extremely long from back to front; forehead, where it existed at all, retreating; the prominence above the eye-orbits, so greatly developed in the skulls of Kiwai, is entirely absent, and the temporal bones less depressed than in the first-named type.

In the interior, we found the natives hardly at all prognathous, the skull still smaller, and the forehead high and almost perpendicular; moderate zygomatic arches, the eye-orbits scarcely marked, and the temporal bones very little depressed; the skull somewhat long, but not much flattened.

From this it is evident that at least three distinct types are in existence, although they may perhaps belong to one series. But a mere glance at the photographs of the Kiwai skulls, and then at those of the interior of New Guinea, is better than any description, and brings out vividly the great differences in the three types.

Their customs differ no less than their appearance. Judging from their fashion of adorning themselves, from their houses, &c., &c., the inhabitants of the interior of New Guinea approach

perhaps nearer to those of the eastern part of the great island, while, on the other hand, those at the mouth of the river resemble the people of the western part. The weapons of the tribes on the Fly are principally the bow and arrow, and stone clubs, some of which are wonderfully carved by a people who are as yet ignorant of the use of any metal.

In the interior of the island especially, the weapons, whether of stone, wood, or bone, are rich and elaborate.

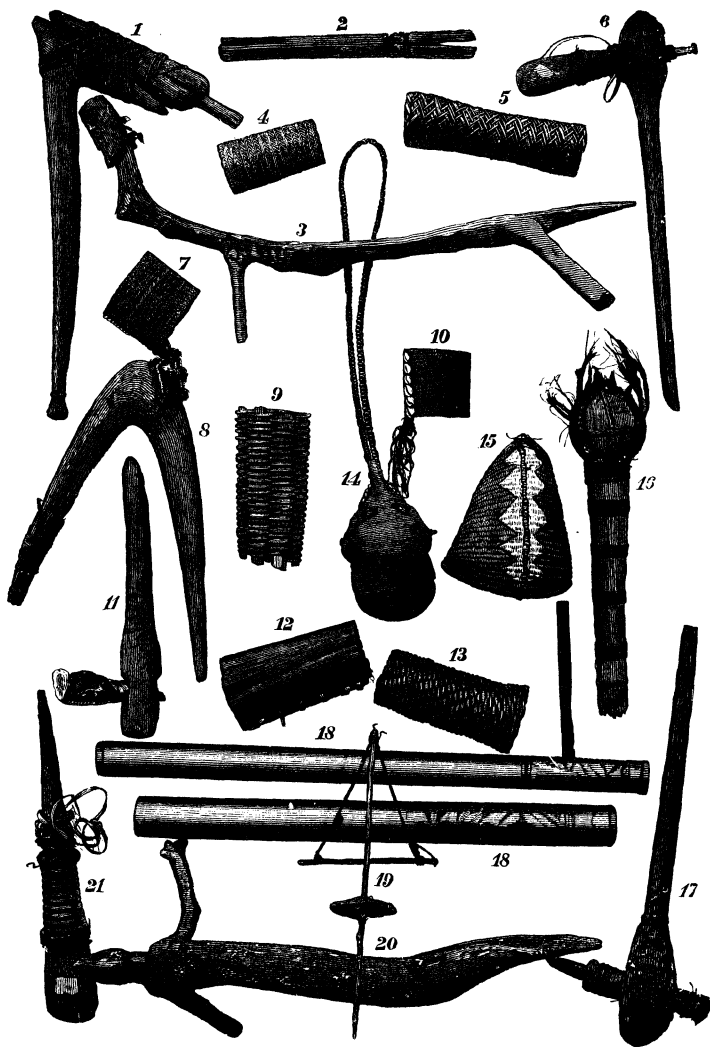
From the annexed woodcut the reader can judge for himself.

We perceive, however, with surprise that these people of the interior are farther advanced towards civilization than those dwelling nearer to the sea. We find them using cloths, finely hand-woven of bark-fibre; cement is used to fasten together the component parts of their arrows, and also various kinds of varnish, showing a great advance on those people who only employ red or yellow earth, lime, or charcoal, to colour and adorn their ornamental work.

The arrows have carved heads, which display the genius of the artist and the cruelty of man. In the interior we found that they had almost always bone points, while near the sea the points were exclusively of wood.

We found no human skulls hanging as trophies on the house-doors in the interior, as at Kiwai; but they are carefully preserved in the houses, and are always coloured red, while the foreheads are frequently marked with some rough design.

At Canoe Island, on the other hand, the



1, 6, 12, 21. Stone axes—Fly River.

3, 20. Wood sleeping-pillows—Fly River and Moatta.

4, 5, 7, 9, 12, 13. Armlets—Fly River, Katav, and Hall Sound.

8. Bamboo hammer.

11. Shell spade.

14. Human skull, used as a musical instrument—Fly River and Canoe Island.

18, 18. Bamboo pipes—Fly River and Moatta.

19. A trepan—Naiabui.





anterior part of the skull is covered with a waxen mask, ornamented with seeds and shells; and by means of a handle of Indian cane this is used as a musical instrument at the native dances. The sound is produced by hard dry seeds or small stones, which are put into the eye-sockets.

In the more distant villages, farther up the river, the waxen mask I have spoken of is not used, but a piece of reed or Indian cane is fixed, by way of handle, to the zygomatic bones. Here also skulls are used as instruments of music.

At Kiwai, human skulls serve only as trophies, and are in no way embellished or ornamented, either by colour, design, or wax mask.

Every native knows the use of tobacco, but those near the sea do not cultivate the plant. It is, however, grown in the interior, and probably constitutes an article of exchange between the inland tribes and those of the coast. It is highly probable that it is exchanged for marine shells, with which the natives of the interior are greatly in the habit of adorning themselves.

Hunting and fishing are the principal pursuits of all the riverside people; but the natives do not neglect the cultivation of the earth, and they possess large plantations of banana, taro, and yams, and near the sea-coast cocoa is very abundant.

Sago abounds in the forest, and is greatly used by the natives. The inhabitants of Kiwai Island are skilled in the construction of large and handsome canoes, which they afterwards sell at Moatta, and in the islands of Torres Straits. Both in the workmanship and in the shape of the canoes a

great difference may often be perceived between the productions of the people of the interior and those of the natives of the coast.

I had not the good fortune to discover any idol among the tribes whom I visited. It would be difficult to decide whether certain human or brute bones, carefully preserved in small parcels or bags of network, are looked upon as amulets. Human jaw-bones are used, both for bracelets and necklaces. Ornaments consist principally of necklaces of seeds or of dog's teeth; but small shells are frequently worn, and large ones as a covering in battle. Feathers of the bird of paradise, and bright-coloured parrot feathers, are also much used as adornments.

The men of Kiwai and of Canoe Island, and those of the interior, are perfectly naked; but the women of the interior wear long garments, like those of the women in the eastern part of the island, while at Kiwai they wear only a tuft of grass.

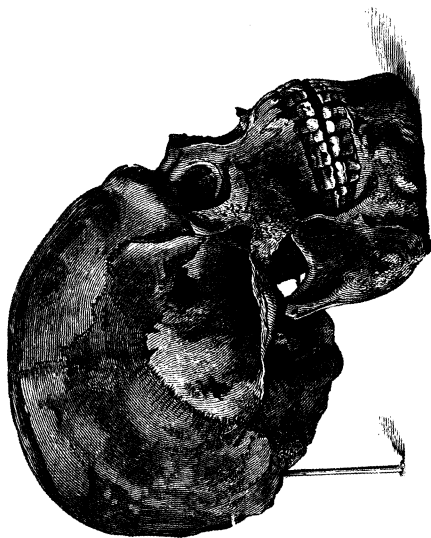
The people of Kiwai resemble the people of Moatta. In my opinion they had one common origin; and I consider them both to be newly settled inhabitants of their present country.

At Moatta they differ, both physically and in their dress, from the people who dwell only a few miles inland; and these latter, if not exactly vassals, are in some sort obliged to pay tribute. I saw this paid in food, while bartering was going on—the people of the interior receiving cocoa-nuts and fish, and those of the coast taking in exchange taro, bananas, sago, and other produce of the soil.





A native of the Island of Man,  
New Britain group.



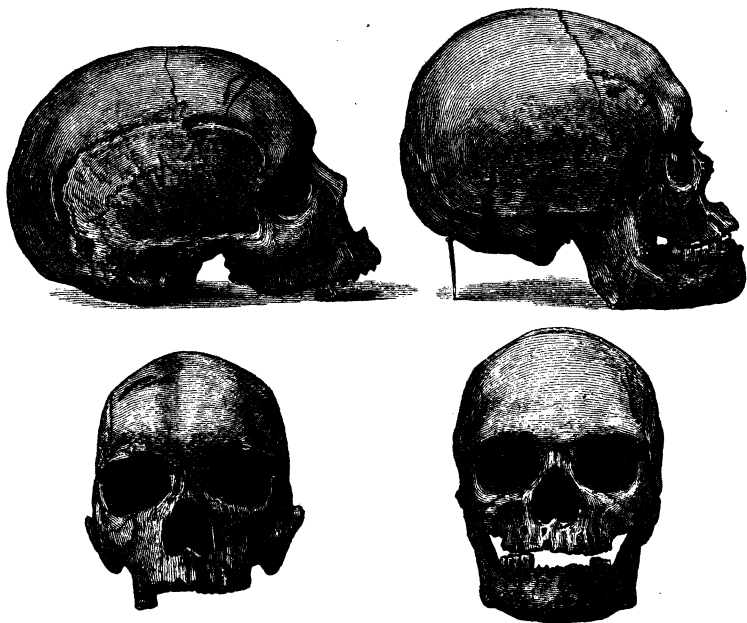
His skull.

It is, moreover, my opinion that the inhabitants of the interior, near Moatta, belong to one of the central races of New Guinea; and I am led to believe this, partly by some of their customs, and partly by an examination and comparison of skulls, of which I annex photographs. I have already stated that the inhabitants of the interior are called Bushmen by the Moattians; but I must not omit to mention, that farther west of Kataw dwell other tribes, continually at war with the men of Moatta, and of a peculiar type. I have not had the good fortune to meet with any of these natives, but I obtained some skulls, which are very characteristic, and quite distinct from those others in my collection which constitute the three principal varieties, and I may say the types of the variety.

These skulls, of which the two in my possession come from Baduhubere, are remarkable for their weight, for their length, for being much flattened at the sides, and for other strongly marked characteristics, which indicate that they belong to an excessively low type.

I possess one skull of a like type, which comes from the island of Spirito Santo, in the Santa Cruz group, and another from Man Island, belonging to the New Britain group, of which last I annex a photograph. In Baron von Hügel's collection I saw some skulls from the interior of the Fiji Islands, bearing more resemblance to the skulls from Baduhubere than these themselves bear to the skulls of the people living only a few miles inland from Moatta, or to any of those in my collection.

I will not now investigate how these types of widely differing races can have come in contact. True to my plan of relating only what I have seen, and what I have done, I confine myself to stating the fact, in the hope that competent persons may find in it a profitable subject for study.



Skulls of Natives of Baduhubere Kataw (Interior).

The country inhabited by the people of Moatta is flat and fertile, and for the most part is under cultivation by the natives. The forest—destroyed, perhaps, by the hand of man—has given place to vast plains, covered with wild grasses, or converted into cultivated gardens by the natives.

There is no doubt that, supposing New Guinea to be colonized, Moatta would, from its situation,

rise from a miserable village into a city, whence the exportation of products from the interior might take place.

If future explorations are undertaken in this part of the island, Moatta, in my opinion, should be chosen as the point of departure.

It would be easy to disembark horses brought from Australia, and convenient on account of the short sea passage. It would be an immense advantage that the natives here are not only friendly to white men, but that they already both understand and speak a little English.

Nor do I think there would be any difficulty in obtaining guides and interpreters for the interior, if, in addition to good pay, the traveller could offer what I may call moral guarantees, and were strong enough to defend his people, if necessary, against attacks from the inhabitants of the interior should they show a hostile disposition.

Another important consideration is, that Moatta could always be regarded as a secure place of retreat, and valuable on account of the direct communication that can be maintained with Torres Straits. The natives themselves could be employed for this purpose, and, if provided with small boats they would not hesitate to repair regularly to Thursday Island and to Somerset to barter their products against European goods, which they would afterwards barter again with the inland tribes. While I am on this subject it is well to repeat, that the sons of Maino, who, I have already stated, is chief of Moatta, asked me many times to sell them my boat, with the intention of undertaking a little trade,

by means of barter, at the stations in the Torres Straits.

Such, to my mind, are the means, which, if slow, are yet sure and easy and of small cost, whereby this island, whose riches have as yet been of no benefit to Europeans, might be colonized. The fertility of its soil, its wide plains, and its abundant water, offer facilities for the greatest results, if the right means are taken at the beginning. And I believe one of the surest means of success here, as at Yule Island, would be association with the natives, since the climate must always, or at any rate for a long time, be inimical to white men.

Although the inhabitants of Moatta are neither more nor less than savages, yet I have not the slightest doubt they would quickly fulfil the hopes of any one who would lead them into civilization.

That such would be the case will be easily perceived by a glance at their rapid progress under the direction of the teachers of the London Missionary Society.

How much more would they not accomplish if, besides the Christian faith, work was also preached to them, and they were shown the way to material prosperity !

With earnest wishes that, before long, European Governments, or an association of philanthropic and practical persons, may take to heart the destinies of these people, among whom I have spent some years of my life, and of whom I retain very pleasant recollections, I now take leave of them.



VOCABULARY USED BY THE PEOPLE OF YULE ISLAND AND  
HALL SOUND.

White, *pureki*.  
 Black, *imukia*.  
 Blue, *umuna*.  
 Yellow, *purena*.  
 Red, *birona*.  
 Green, *aita*.  
 Man, *hau*.  
 Woman, *babini*.  
 Boy, *miori*.  
 Face, *orere*.  
 Eyes, *marere*.  
 Ear, *aiak*.  
 Nose, *itu-utc*.  
 Tongue, *maia*.  
 Teeth, *iteka*.  
 Breast, *rarao*.  
 Paunch, *oro*.  
 Backbone, *cape*.  
 Breasts { of men, *tutuka*.  
           { of women, *maitutuna*  
 Vulva, *ione*.  
 Right hand, *cipano*.  
 Left hand, *ua-harimo*.  
 Arm, *inman*.  
 Nail, *ouou*.  
 Thigh, *apeu*.  
 Leg, *icia-u*.  
 Feet, *apu*.  
 Yesterday, *erapi*.  
 To-morrow, *mara*.  
 Day after to-morrow, *kerana*.  
 Three days hence, *werani*.  
 Sun, *beraura*.  
 Moon, *raoma*.  
 North, *mirikini*.  
 South, *cibo*.  
 East, *baura*.  
 West, *baruro*.  
 To give, *obena*.  
 To show, *temaitä*.  
 To come, *mai*.

Come quickly ! *umä-imo*.  
 To eat, *namona*.  
 To laugh, *irere*.  
 Bring it me, *katemai*.  
 To sleep, *aparua*.  
 Spear, *perume*.  
 Knife, *akiua*.  
 Hatchet, *wapira*.  
 Alive, *nenoho*.  
 Dead, *mate*.  
 To kill, *matte-matte*.  
 Blood, *aru-arü*.  
 Butterflies, *però-però*.  
 Wing, *vanina*.  
 Beak, *ituna*.  
 Bird's foot, *aena*.  
 Tail, *onuna*.  
 Feathers, *buiira*.  
 Quills, *tarri-tarri*.  
 Snail, *pici-pici*.  
 Sea shells, *naita*.  
 Land shells, *paira*.  
 Mother of pearl, *mairi*.  
 Tortoise, *bono*.  
 Pig, *aiporo*.  
 Cockatoo, *apena*.  
 Spider, *au-auä*.  
 Dog, *waja*.  
 Flying fox, *apo-apo*.  
 Crocodile, *puaja*.  
 Coleoptera, *ipi-ipi*.  
 Gnats, *neni*.  
 Fish, *cici*.  
 Large lobster, *ura*.  
 Small lobster, *kici*.  
 Lizard, *papä-a*.  
 Duck, *bui-bui*.  
 Crab, *paharo*.  
 Large crab, *ebe*.  
 Rat, *kaiua*.  
 Egg, *hahoihua*.

Earth, *ano*.  
 Mountain, *kuni*.  
 Plain, *ipu*.  
 Sea, *aku*.  
 Salt water, *aku*.  
 Fresh water, *bey*.  
 Salt, *kikimaro*.  
 Canoe, *aci*.  
 Oar, *bute*.  
 Fish-hook, *naku*.  
 Net, *reè*.  
 Eatables, *aniani*.  
 Young cocoa-nuts, *niu*.  
 Old cocoa-nuts, *tona*.  
 Yams, *aju*.  
 Artocarpus, *hoki*.  
 Sugar-cane, *hobo-hobo*.  
 Bananas, *urea*.  
 Tree, *omo*.  
 Wood, *macio*.  
 Comb, *ini*.  
 Bracelet, *ropo*.  
 Tunic of grass, *nakibi*.  
 Cloth from bark of tree, *tupuna*.  
 Ring worn in the nose :  
     Of shells, *punai*.  
     Of cane, *pauama*.  
 Gourd for lime, *aoma*.  
 Little stick for lime, *rebareba*.  
 Girdle of grass, *karama*.  
 Girdle of rattan, *waro*.  
 Tortoise-shell ear-rings, *aba*.  
 Ear-rings of pigs'-tails, *are*.  
 Mourning-cap, *hi-uhu*.  
 Spoon of cocoa-nut, *cima*.  
 Heaven ; sky, *cupa*.  
 Lightning, *aitàra*.  
 Thunder, *cupaneroo*.  
 I, *au*.  
 You, *oi*.  
 Hair  
 Beard        }  
 Whiskers     }  
                   } *bui*.  
 Quite well, *inoku*.  
 No, *mia*.  
 To fear, *mariki*.  
 Fear not, *mariki mia*.  
 Fire, *irupa*.

Father, mother, *anepaka*.  
 Serpent, *erao*.  
 This, *na*.  
 Earthquake, *auāhu*.

## NUMBERS.

One, *aia*.  
 Two, *dua*, or *rua*.  
 Three, *aitan*.  
 Four, *bani*.  
 Five, *ima*.  
 Six, *abaità*.  
 Seven, *amomo*.  
 Eight, *ababani*.  
 Nine, *ababaniomo*.  
 Ten, *araukai*.  
 Eleven, *araukai aia*.  
 Twelve, *araukai rua*.  
 Thirteen, *araukai aitan*.  
 Fourteen, *araukai bani*.  
 Fifteen, *araukai ima*.  
 Sixteen, *araukai abaità*.  
 Seventeen, *araukai amomo*.  
 Eighteen, *araukai ababani*.  
 Nineteen, *araukai ababaniomo*.  
 Twenty, *araukai araurua*.  
 Thirty, *araukai araurua*.

## PROPER NAMES OF PERSONS.

## WOMEN'S NAMES.

Abia  
 Puro.  
 Toto.  
 Tebe.  
 Aiba.  
 Uré-uré.

## MEN'S NAMES.

Naimi.  
 Nabao.  
 Ocona.  
 Para.  
 Matchu.  
 Warupi.  
 Oa.  
 Yoane.  
 Porve.  
 Baki.  
 Imo.

## VOCABULARY USED BY THE PEOPLE OF MANSINAM AND HATAM.

ENGLISH.	HATAM.	MANSINAM.	ENGLISH.	HATAM.	MANSINAM.
Spoon,	<i>Otombreia</i> ,	<i>Assiok</i> .	Metal do.,	<i>Branina</i> ,	<i>Siara</i> .
Bird,	<i>Affä</i> ,	<i>Man</i> .	Necklace,	<i>Nieba</i> ,	<i>Ira</i> .
Water,	<i>Migneia</i> ,	<i>War</i> .	Teeth,	<i>Imsuia</i> ,	<i>Namsi</i> .
Fire,	<i>Uma</i> ,	<i>For</i> .	Beard,	<i>Tuntapa</i> ,	<i>Snabur</i> .
Man,	<i>Tumütua</i> ,	<i>Senumkaku</i> .	Pig,		<i>Beni</i> .
Woman,	<i>Sauba</i> ,	<i>Bien</i> .	Ear-rings,	<i>Corä</i> ,	<i>Robefä</i> .
Head,	<i>Nabuä</i> ,	<i>Korbusnä</i> .	Small ring	} <i>Tsigan</i> ,	<i>Aitubo</i> .
Eyes,	<i>Niakja</i> ,	<i>Mganzi</i> .	worn in		
Nose,	<i>Miaba</i> ,	<i>Snombri</i> .	the nose,		
Mouth,	<i>Uja</i> ,	<i>Subaruri</i> .	Frontlets,	<i>Luesä</i> ,	<i>Mangarues</i> .
Hand,	<i>Indapä</i> ,	<i>Cobrasuä</i> .	Disks of	} <i>Breë</i> ,	<i>Sinta</i> .
Ear,	<i>Ten-ahua</i> ,	<i>Kenamsi</i> .	the conch		
Leg,	<i>Tanumä</i> ,	<i>Uesi</i> .	shell,		
Foot,	<i>Ghebó-jä</i> ,	<i>Uemsbamia</i> .	Bracelets	} <i>Ria</i> ,	<i>Kak</i> .
Neck,	<i>Kmama</i> ,	<i>Sassumbiri</i> .	made of		
Day,	<i>Piapien</i> ,	<i>Ras</i> .	grass and		
Night,	<i>Munat</i> ,	<i>Rob</i> .	feathers,		
Sun,	<i>Poä</i> ,	<i>Ori</i> .			
Moon,	<i>Beda</i> ,	<i>Paichia</i> .	PROPER NAMES OF PERSONS.		
Forest,	<i>Nan-ua</i> ,	<i>Sup</i> .	WOMEN'S NAMES.		
Sugar-cane,	<i>Na-ja</i> ,	<i>Cob</i> .	Quampau.		
Food,	<i>Jema</i> ,	<i>Canan</i> .	Uobingai.		
Drinking,	<i>Iduda</i> ,	<i>Kinem</i> .	Seiuä.		
Hair,	<i>Ibuntapa</i> ,	<i>Sumbrain</i> .	MEN'S NAMES.		
Walking,	<i>Imbudä</i> ,	<i>Komrain</i> .	Koronoi.		
Pipe,	<i>Ukä</i> ,	{ <i>Robian</i> -	Fanduri.		
Bracelet,	<i>Supana</i> ,	{ <i>sabaco</i> .	Ucoot.		
		<i>Sanfar</i> .	Amar.		

## VOCABULARY USED IN YORKE ISLAND, TORRES STRAIT.

Hand, <i>ghete</i> .	Star, <i>titui</i> .
Shoulder, <i>collan</i> .	Fish, <i>wappi</i> .
Legs, <i>cappi</i> .	Dog, <i>umai</i> .
Body, <i>kammu</i> .	Bird, <i>urui</i> .
Tongue, <i>rid</i> .	Sleep, <i>tunan</i> .
Fire, <i>mui</i> .	Man, <i>graka</i> .
Heaven, <i>mee</i> .	Woman, <i>ipi</i> .
Moon, <i>malapan</i> .	Girl, <i>ranhai</i> .
Sun, <i>dega</i> .	Baby, <i>maghina</i> .

Water, *humkuki*.  
 Tree, *watara*.  
 Sea, *uru*.  
 Rain, *ari*.  
 Food, *prutai*.  
 Canoe, *goule*.  
 Tortoise, *waru*.  
 Cocoa-nut shell, *urab*.  
 Death, *umem*.  
 Life, *kikiri*.  
 Sail, *walli*.

Oar, *udar*.  
 Banana, *katam*.

## YORKE ISLAND.

- No. 1. Warapon.  
 „ 2. Ukesar.  
 „ 3. Ukesar-warapon.  
 „ 4. Ukesar-ukesar.  
 „ 5. Ukesar-ukesar-warapon.  
 „ 6. Ukesar-ukesar-ukesar.  
 „ 7. Ukesar-ukesar-ukesar-wara-  
 [pon.

VOCABULARY IN USE AMONG THE PEOPLE OF MOATTA AT  
 THE MOUTH OF THE RIVER KATAW.

Forehead, *guri*.  
 Head, *epuco*.  
 Face, *guri*.  
 Nose, *uadi*.  
 Mouth, *magata*.  
 Tongue, *uato-torope*.  
 Teeth, *ibonora*.  
 Eye, *idamari*.  
 Ear, *epate*.  
 Chin, *bago*.  
 Beard, *bagamua*.  
 Whiskers, *ipuu*.  
 Hair, *epuromuo*.  
 Neck, *mao*.  
 Arm, *tuo*.  
 Hand, *tupata*.  
 Finger, *tuiopo*.  
 Feet, *airupata*.  
 Lower limbs, *aira*.  
 Thigh, *uaghi*.  
 Leg, *emado*.  
 Knee, *papu*.  
 Chest, *bodoro*.  
 Back, *ghimini*.  
 Paunch, *dopi*.  
 Navel, *upuro*.  
 Penis, *arumo*.  
 Testicles, *mu-hopo*.

Vulva, *aef*.  
 Intestines, *tuburo*.  
 Heart, *cuicuŭ-hopo*.  
 Lungs, *parapara*.  
 Liver, *beo*.  
 Loins, *otai-hopo*.  
 Stomach, *autuburo*.  
 Brain, *tighiro*.  
 Gall, *hono*.  
 Veins, *tuhui*.  
 Blood, *arima*.  
 Breathing, *hera*.  
 Beating of the heart, *kepeduti*.  
 Windpipe, *oboturao*.  
 Æsophagus, *oromaturuo*.  
 Throat, *turno*.  
 Shoulder, *tighiri*.  
 Clavicle, *caburido*.  
 Ribs, *barahoro*.  
 Breast, *oddo-oddo*.  
 Spinal column, *ghimnicaco*.  
 Pelvis, *uumohoro*.  
 Thigh-bone, *uaghicaco*.  
 Tibia, *emaducaco*.  
 Shoulder, *tucaco*.  
 Ulna, *tuipicaco*.  
 Elbow, *tupopo*.  
 Nails, *ighiri*.

Skin, *tama*.  
 Breasts, *amo*.  
 Thumb, *oto*.  
 Forefinger, *ototuri*.  
 Middle finger, *turi-hia*.  
 Ring finger, *eteturi*.  
 Little finger, *ete*.  
 Vertebrae of the neck, *maocaco*.  
 Shoulder-blade, *tighiricaco*.  
 Coccyx, *bighi*.  
 Spinal marrow, *ghighido*.  
 Man, *harubi*.  
 Woman, *upi*.  
 Boy, *hoi-hoi*.  
 Baby, *mere*.  
 Girl, *bereburo*.  
 White man, *turicarubi*.  
 Coloured man, *sarimissa*.  
 House for men, *darimo*.  
 House for women, *moto*.  
 Arrows, *uere*.  
 Bow, *gagari*.  
 Pipe, *marabo*.  
 Sago, *dau*.  
 Sweet potatoes, *miruu*.  
 Yams, *opuo*.  
 Bananas, *dubari*.  
 Tree, *ota*.  
 Iron, *turika*.  
 Canoe, *peé*.  
 Oar, *aibi*.  
 Basket, *ito*.  
 Knife, *ghiri*.  
 Fish-hook, *tudi*.  
 Stone hatchet, *emoa*.  
 Bone dagger, *tzoche*.  
 Bone spoon, *uarecabo*.  
 Necklace of teeth, *ghenaio*.  
 Ring worn in the nose, *uadimuti*.  
 Stone, *nora-api*.  
 Resin, *gia*.  
 Ear-ring, *gaghi*.  
 Fresh-water bivalves, *tepere*.  
 Little stick for limes, *cioche*.  
 Gourd for lime, *ameopuro*.  
 Stone club, star-shaped, *goropo*.

Bag made like a net, *abea*.  
 Stone club of round shape, *gabba-gabba*.  
 Handle of same, *puda*.  
 Woman's petticoat, *uapa*.<sup>1</sup>  
 " " *keakea*.  
 Sun, *ibiu*.  
 Moon, *gamuno*.  
 Star, *oro*.  
 Heaven and sky, *aromo*.  
 Night, *uo*.  
 Day, *duo*.  
 Morning, *ibiu-jrogoro*.  
 Evening, *ibirorogomai*.  
 To-day, *duomuto*.  
 To-morrow, *uah-roito*.  
 Earth, *driomoro*.  
 Drinking-water, *tupobo*.  
 Water, not for drinking, *carà-caraba*.  
 Shower of rain, *uiari*.  
 Clouds, *toboro*.  
 Wind, *hu-hu-a*.  
 Thunder, *gururu*.  
 Lightning, *poniponi*.  
 Fire, *era*.  
 Smoke, *tema*.  
 Cinders, *cunaro*.  
 Coal, *uibo*.  
 Rain, *viare*.  
 Walking, *agoitogo*.  
 Coming, *nitago-ogo*.  
 Sleep, *utua*.  
 Sitting, *omia*.  
 Standing up, *oriboa*.  
 Crying, *idobi*.  
 Laughing, *uari*.  
 Looking; guarding, *oea*.  
 Drinking, *odio*.  
 Speaking, *obera*.  
 Scolding, *biroro*.  
 Enclosures of wood, *epora*.  
 Cord, or twine, *itira*.  
 Rope, *waro*.  
 I, *mo*.  
 You, *ro*.  
 They, *nou*.

<sup>1</sup> Not worn by the inhabitants of the coast, but by those in the interior.

Yes, *io*.

No, *puai*.

Good, *adina*.

Bad, *ubana*.

Cocoa-nut shell, *oi*.

Pig, *buruma*.

Dog, *umo*.

Fish, *arimina*.

Root, *tibi*.

Bird, *hollogo*.

Tail of bird, *nopo*.

Goat ; beak, *muba*.

Wings, *tamo*.

Handle of spoons, *nopo*.

Tail of quadruped, *sano*.

Feathers, *uaro*.

Cassowary, *samo*.

Fern, *epe*.

„ *attio*.

„ *agareba*.<sup>2</sup>

Croton, *kersimae*.

Fever, *temè-temè*.

Elephantiasis, *dupu*.

Waterfall, *camì-camì*.

Extraordinary swelling, *saghighi*.

Extraordinary swelling of the glands  
of the groin, *ghemaiopo*.

Drum, *gamă*.

Red earth, *aradiri*.

Cuscus, *parima*.

#### PROPER NAMES OF PERSONS.

##### MEN'S NAMES.

Dawan.

Maino.

Waruki.

Auda.

<sup>2</sup> Used as food both in the north and the south of the island.

NOTES ON THE PLANTS COLLECTED BY SIG. L.  
M. D'ALBERTIS IN NEW GUINEA.

BY O. BECCARI.

IN the study of the plants of tropical regions there are almost always difficulties which fortunately are much more rarely met with in those of temperate climes, and this on several accounts.

First, because of the size of the vegetative parts and their succulence, in consequence of which it is often difficult and sometimes impossible to secure specimens of many of the plants in hot countries for the Herbarium. Even if preserved they are so out of shape as to be very often almost useless for study. The same may be said of certain flowers and of the greater number of fruits.

In the second place, the flowers and fruits of tropical plants are for the most part difficult to find, and are often exceedingly few in number; and while on an herbaceous plant of our own country we almost always find, besides the leaves and roots, an abundance of flowers in various stages of development, and sometimes also its fruit in a state of maturity, we require in a tropical plant a complete and numerous series of specimens before we can obtain an exact knowledge of its various parts.

Consequently, in the greater number of cases, the specimens that can be collected during one journey of exploration and preserved by one naturalist, who does not make the collection of plants his principal object, are liable to be difficult of identification.

In addition to the unavoidable imperfection of the specimens in the Herbarium, the study of the plants of New Guinea is rendered yet more difficult by imperfect acquaintance with the Flora of neighbouring countries, and by the affinity which the Papuan plants present with those of the Malay Archipelago (Moluccas especially) of the Philippines, of Polynesia, and of tropical Australia. Hence, for the exact specification of New Guinea plants, a profound knowledge of the species proper to the above-named countries is essential.

I must note here that the place in the system of several of the plants in the following catalogue has been determined from

examination of the fruit alone, and in some cases from one solitary seed. I permit myself to state this in order to account for the great imperfection of the catalogue, which, at the wish of my friend and former travelling companion, I have endeavoured to enrich with all the plants collected by him during his arduous and adventurous exploration of the heart of New Guinea, and his ascent of the Fly wherever it was possible to navigate that river.

The short time that I have been able to devote to this work must be another apology for its imperfection. I therefore beg that Botanists will not attach too much importance to my classifications, which I do not put forward as anything more than approximations. I believe, however, they are sufficient to give an idea of the vegetation of the southern part of New Guinea, and to show that there is no great difference in the Flora of the various parts of the island, and that consequently the general type may be considered as Malayan.

Some of the species in the following catalogue are certainly new, but I do not consider this a fitting place for their description, as I have not as yet bestowed names on them, hoping to have leisure to comment on them on a future occasion.

The specimens which have served for my own studies, and which were generously given me by Signor D'Albertis, were collected at two different epochs. Some were gathered during the first expedition of 1876, and were used by Baron F. von Müller in his "Descriptive Notes on Papuan Plants;" others during the following year, and were preserved in a tin box of rectangular shape, the same size as the sheets of paper of the Herbarium, and containing alcohol. The plants were arranged in layers, well pressed down, and the whole soldered. In this state they remained enclosed for more than a year. On opening the box, many of the plants and nearly all the fruits were black. I concluded that this was caused principally by a compound of vegetable origin, formed by the iron of the box and the juices of the plants; and by soaking and washing the specimens first in fresh water, and then adding to it some hydrochloric acid, I succeeded in restoring their natural colour. I then dried them in the usual way on blotting-paper, and obtained specimens far superior to those prepared by the ordinary method.

Signor D'Albertis is not the first who has brought plant-specimens from the south of New Guinea. His botanical collec-



tion, however, surpasses in importance those of all other travellers in these regions. Plants have been collected in parts of New Guinea—principally at Port Moresby, Yule Island, and Darnley Island—by Mr. Andrew Goldie, Mr. McLeay, Mr. Needy, the Rev. Mr. Macfarlane, and Dr. Turner, and the specimens brought by these gentlemen have been made known by Baron F. von Müller. They are species of wide geographical diffusion, found principally on sea-coasts, and in proximity to human habitations and cultivated lands.

But those of Signor D'Albertis give for the first time an idea of the vegetation in the primeval forest, and on the shores of a river which rises far in the interior of the Papuan country. Specimens are certainly wanting of the greater number of trees comprised in this forest, and this is easily explicable, for in addition to denseness in the forests of the Malay type, the trunks rise to so considerable a height that it is nearly impossible to reach either leaves or flowers. However, according to Signor D'Albertis, the forest in the regions explored by him does not always offer the Malay characteristics (which may be said to predominate, without exception, in the northern parts of New Guinea). Large tracts of country have an Australian look; the trees are sparse, giving easy passage among them even to horsemen, and the ground is not encumbered as in other kinds of forest. The predominating trees are the *Eucalyptus Papuanus*, the *Banksia dentata*, and a couple of species of *Acacia*. These may be considered as almost the only true Australian trees that I have met with among the specimens of those given me by Signor D'Albertis.

Some of the species which I find in the collection are common to tropical Australia and to New Guinea. Such are the *Elæocarpus Arnheimicus*, the *Schelhammerya multiflora* R. Br., the *Kentia Wendlandiana*, the *Kissodendron Australianum*, Seem., which may more reasonably be considered as plants of Malay type, which have migrated to Australia, than as Australian plants having migrated to New Guinea. The great majority of the species in the annexed catalogue are decidedly Malayan; therefore, although long tracts of country may seem to offer the appearance of an Australian landscape (on account of the few trees of Australian characteristics which I have named), the type of the Papuan Flora, or at least of the Flora as yet known to us, is, I repeat it, eminently Malayan.

Almost every Genus mentioned in the catalogue is also found in the north of New Guinea. Some, however, may appear to be wanting there; but they are Genera proper to the Indian region, such as the *Pterocymbium*, a species of *Cochlospermum*, a *Quisqualis*, a *Vateria*, and a *Hodgsonia*. A good number of species are common to both localities. This is the case with some of the most characteristic; and almost all belong, it would seem, exclusively to New Guinea, or can at most be found in the Moluccas. I recognized among them various *Menispermaceæ*, among which the most remarkable are the *Bania thyrsoiflora*, the *Chlœnandra ovata*, and the *Macrocculus pomiferus*. A most beautiful species of *Schuermansia*, the *Sloanea paradisearum*, the *Flindersia Papuana*, the *Gonocaryum pyriforme*, several *Mucuna*, the *Alocasia Portei*, and other species.

Particularly interesting is the *Barclaya Motleyi*—a *Nymphæaceæ* found in Borneo and in other islands of the Archipelago, and which I have also found at Ramoi, in Southern New Guinea. The *Dicotylanthera tenuis* is likewise very remarkable; it is a small parasitical *Gentianaceæ*, which has diffused itself from Java to the Polynesian islands.

One of the peculiarly interesting plants is the *Hibiscus Albertisianus*, which, according to F. v. Müller, belongs to the group of *H. tulipiflorus* Hook. of St. Domingo and of Guadelupa. Among the handsomely flowering plants which would ornament our gardens, if they could be acclimatized, Signor D'Albertis discovered the *Mucuna Bennettii*, the *M. Albertisii*, the *Randia Macarthurii*, the *Cycas Papuana*, the *Dendrobrium Albertisii*, and some other Orchids. A most beautiful variety of *Codiaeum moluccanum*, cultivated by the Papuans for its brightly-coloured leaves, is already flourishing in gardens at Sydney. I recognized twelve kinds of Palms among the plants from the Fly River, but I have not been able to examine more than the fruit of many of them. The Cocoa-nut-tree is represented by some long-shaped and comparatively small nuts, made use of by the aborigines as receptacles for various purposes.

Noteworthy also is the *Ptychosperma paradoxa* Scheff., identical with that of the Humboldt's bay; *Kentia Wendlandiana* F. v. M., which is also found at Cape York; and a species of *Bacularia* or *Linospadix*, related to one of the species of Mount Arfak.

There are some immature fruits of *Ptychosperma* allied to

but not identical with, the *P. Normanbyi* F. v. Müller (which I cannot concede to be synonymous with the plant first described under the name of *Saguerus Australasicus*). The *Arenga saccharifera* La Bill. I found represented among the D'Alberty plants by some fragments of leaves.

Among the vegetable products having a commercial value, the principal are fragments of aromatic bark of the Massoi (*Massoia aromatica* Becc.), and of the Kulit Lawan (*Cinnamomum*, sp.). There are also the fruits of various kinds of wild *Myristica*, which might be of value in European markets, and samples of tobacco leaves, showing how the culture of this plant is carried on in New Guinea.

Among the objects of ethnological interest collected by Signor D'Alberty, and more especially found within the little fibre-bags made use of by the natives, are various kinds of bark, which I could not recognize with certainty (with the exception of the *Kulit Lawan* and the *Massoi*). There is a piece of the root of the *Samadera indica*, which, when boiled, is used in the Malay Archipelago as a febrifuge; there are seeds of *Pangium edule*, of a *Sapotacea* (perhaps of the *Bassia*? *Cocco* Scheff.), and of a *Hodgsonia*, which are used for rattles, together with the shells of large crustacea.

There are small receptacles made from the seeds of the *Cycas*, as far as I can judge; and a small brush for applying red dye (red earth), which is simply a fruit of the *Pandanus*, the expansion of its inferior fibres adapting it excellently for this purpose. Combs are made from a fruit of a new species of *Canarium*, which has sharp points at one extremity.

From the seeds of the *Aleurites triloba* an oil is extracted, or an oleaginous paste compounded, which is used for candles. There are two kinds of resin (one is perhaps procured from a *Dipterocarpea*, the other appears to be from the *Dammara alba*). In conclusion, one root seems to me identical with that called *Tuba* by the Malays; it is used to stupefy fish, and it is, perhaps, that of a Leguminose (*Milletia*, sp.).

## CATALOGUE OF THE PLANTS OF THE FLY RIVER, 1877.

BY O. BECCARI.

## DILLENIACEÆ.

- 1.
- Wormia*
- , sp.

## ANONACEÆ.

- 2.
- Uvaria*
- sp. 3.
- Orophaea*
- sp. 4.
- Oxymitra*
- sp. n. 5, 6.
- Goniothalamus*
- sp. 2. 7.
- Goniothalamus*
- sp. ?

## MENISPERMACEÆ.

- 8.
- Bania thyrsiflora*
- Becc. 9.
- Pycnarrhena Novo Guineensis*
- Miq. ? 10.
- Macrococculus pomiferus*
- Becc. var. 11.
- Chlœnandra ovata*
- Miq. 12.
- Tinospora*
- ? macrocarpa Becc. ? 13.
- Hypserpa polyandra*
- Becc.

## NYPHÆACEÆ.

- 14.
- Barclaya Motleyi*
- Hook. f.

## CAPPARIDÆÆ.

- 15.
- Cratœva*
- sp.

## VIOLARIÆÆ.

- 16.
- Schuermansia*
- sp. n.

## BIXINÆÆ.

- 17.
- Cochlospermum*
- sp. 18.
- Panigium edule*
- Reinw.

## MALVACEÆ.

- 19.
- Urena heterophylla*
- Smith. 20.
- Hibiscus tiliaceus*
- L. 21.
- H. D'Albertisii*
- F. v. M. 22.
- H. Rosasinensis*
- L. 23.
- H. Abelmoschus*
- L.

## STERCULIACEÆ.

- 24.
- Melochia Vitiensis*
- A. Gray. 25.
- Pterocymbium Javanicum*
- R. Br. 26.
- Sterculia*
- sp. 27.
- Heritiera litoralis*
- Forst.

## TILIACEÆ.

- 28.
- Elœocarpus Arnemicus*
- F. v. M. 29, 30.
- Elœocarpus*
- sp. 2. 31.
- Grewia pleiostigma*
- F. v. M. 32.
- Sloanea paradisearum*
- F. v. M.

## DIPTEROCARPEÆ.

- 33.
- Vateria*
- sp. n.

## GUTTIFERÆ.

- 34.
- Garcinia subtilinervis*
- F. v. M. 35.
- Calophyllum*
- sp.

## SAPINDACEÆ.

- 36.
- Aphania cuspidata*
- Radlk. 37.
- Arytera brachyphylla*
- Radlk. 38.
- Harpullia angustifolia*
- Radlk.

## BURSERACEÆ.

- 39, 40, 41.
- Canarium*
- sp. 3 (fruits only).

## MELIACEÆ.

- 42.
- Flindersia Papuana*
- F. v. M. 43.
- Dysoxylon*
- sp. 44.
- Dysoxylon*
- sp. ?

## AMPELIDÆÆ.

- 45.
- Leea*
- sp. 46.
- Leea*
- sp.
- <sup>3</sup>
- 47.
- Vitis trifolia*
- L. 48.
- Vitis*
- sp.

## RUTACEÆ.

- 49.
- Glycosmis*
- sp. 50.
- Micromelum*
- sp. 51, 52.
- Paramignya*
- ? sp. 2. 53.
- Evodia hortensis*
- R. et G. Forst.

## ICACINÆÆ.

- 54.
- Gonocaryum affine*
- Becc. 55.
- G. pyriforme*
- Scheff. 56.
- Ryticaryum macrocarpum*
- Becc. 57.
- Platea Papuana*
- Becc.

## RHAMNACEÆ.

- 58.
- Helinus*
- sp. n. ?

## SAMYDACEÆ.

- 59.
- Casearia*
- sp.

## ANARCARDIACEÆ.

- 60, 61, 62.
- Semecarpus*
- sp. 3. 63.
- Spondias*
- sp.

<sup>3</sup> Leaves marked with white underneath along the ribs.

LEGUMINOSÆ.

64. *Dalbergia* sp. 65. *Mucuna* (fruit only.) 66, 67. *Mucuna* sp. 2. 68. *M. Bennettii* *F. v. M.* 69. *M. Albertisii* *F. v. M.* 70. *Adenantha Pavonina* *L.* 71. *Dioclea* sp. ? 72. *Guilandina Bonduc* *L.* 73. *Pythecolobium* sp. ? 74, 75. *Pythecolobium* sp. 2. 76. *Cynometra* sp. 77. *Acacia holosericea* *All. C.* 78. *Acacia* sp. 79. *Erythrina* sp. 80, 81. *Desmodium* sp. 2. 82. *Pueraria* sp. 83. *Strongylodon* sp. 84. *Inocarpus* sp. (fruits only).<sup>4</sup>

COMBRETACEÆ.

85. *Quisqualis Indica* *L.*

ONAGRARIACEÆ.

86. *Jussiaea repens* *L.*

LYTHRARIÆ.

87. *Lagerstrœmia* sp. 88. *Sonneratia* sp.

MELASTOMACEÆ.

89. *Melastoma* sp. 90. *Medinilla* sp. 91. *Memecylon* sp.

MYRTACEÆ.

92. *Barringtonia* sp. 93—100. *Eugenia* sp. 8. 101. *Melaleuca Leucadendron* *L.*

PASSIFLOREÆ.

102. *Modecca* sp.

CUCURBITACEÆ.

103. *Hodgsonia heteroclita* *Hook ?* (seeds only). 104, 105, 106. *Cucurbitaceæ* sp. 3, belonging to undetermined genera. 107. *Zanonia* sp. (seeds only).

ARALIACEÆ.

108. *Kissodendron Australianum* *Seem.* 109. *Heptapleurum* (*Trevesiæ* sp. *Becc. ?*) *fimbriatum* *F. v. M.*

RUBIACEÆ.

110, 111. *Myrmecodia* sp. 2. 112. *Randia Macarthurii* *F. v. M.* 113. *Mussaenda* sp. 114. *Lasianthus* sp. 115, 116. *Nauclea* sp. 2. 117, 118, 119, 120, 121, 122, 123. *Rubiaceæ* indetermin. sp. 7. 124, 125. *Ixora* sp. 2. 126. *Coprosma* sp.

COMPOSITÆ.

127. *Wallastonia strigulosa* *DC.* 128. *Comp. ind.*

VACCINIACEÆ.

129. *Agapetes* sp. n.

MYRSINÆ.

130. *Labisia* sp. 131. *Ardisia* sp. 132. *Maesa haplobotrys*, *F. v. Müller.* 133. *Maesa protracta*, *F. v. Müller.*

SAPOTACEÆ.

134. *Chrysophyllum* sp. 135. *Bassia* sp.

EBENACEÆ.

136. *Maba elliptica* *N. et G. Forster.* 137. *Diospyros* sp. (fruit)

OLEACEÆ.

138. *Chionanthus* sp. 139. *Jasminum* sp.

APOCYNÆ.

140. *Alstonia longissima* *F. v. M.* 141, 142. *Gen. dub.* sp. 2. 143. *Melodinus* sp. 144. *Kopsia* sp. 145. *Cerbera* sp. 146. *Alyxia* sp. (fruit). 147. *Tabernæmontana aurantiaca* *Gaud.*

ASCLEPIADEÆ.

148. *Dischidia* sp. 149. *Gen. dub.*

LOGANIACEÆ.

150. *Fagraea* sp. 151. *Strychnos* sp.

<sup>4</sup> The D'Albertis Collection contains seeds of six other species of *Leguminosæ*.

## GENTIANACEÆ.

152. *Limnanthemum Indicum*  
*Thw.* 153. *Cotylanthera tenuis* *Bl.*

## BIGNONIACEÆ.

154. *Spathodea Reedii* *Wall.*

## GESNERIACEÆ.

155. *Cyrtandra* sp. 156, 157. *Æschynanthus* sp. 2.

## CONVOLVULACEÆ.

- 158, 159, 160. *Ipomoea* sp. 3.

## BORRAGINEÆ.

161. *Tournefortia sarmentosa* *Lam.*

## SOLANACEÆ.

162. *Solanum* sp. 163. *Solanum*  
 sp. P

## ACANTHACEÆ.

- 164, 165. *Eranthemum* sp. 2. 166.  
*Eranthemum* sp. ?

## VERBENACEÆ.

167. *Clerodendron* sp. 168. *Premna* sp. 169. *Faradaya* sp.

## POLYGONEÆ.

170. *Muehlenbeckia gracillima*  
*Meissn.*

## LAURINEÆ.

171. *Tetranthera* sp. 172. *Cryptocarya* sp. 173. *Massoia aromatica*  
*Becc.* (*Sassafras Goesianum* *Cat. H. bot. bog.*)<sup>5</sup>

## MYRISTICACEÆ.

- 174, 175, 176, 177. *Myristica*  
 sp. 4

## PROTEACEÆ.

178. *Banksia dentata* *L.f.*

## THYMELEACEÆ.

179. *Drymispermum coccineum*  
*Becc.* (*Pseudais coccinea* *Decaisne*).

## LORANTHACEÆ.

- 180—182. *Loranthus* sp. 3.

## OLACINEÆ.

183. *Ola* sp.

## SANTALACEÆ.

184. *Gen. dub.*

## NEPENTHACEÆ.

185. *Nepenthes ampullaria* *Jack.*

## BEGONIACEÆ.

186. *Begonia Malabarica* *Lam.*  
 187. *B. spilotophylla* *F. v. M.*

## EUPHORBIACEÆ.

188. *Sapium Indicum* *Willd.* 189.  
*Macaranga Aleuritoides* *F. v. M.*  
 190. *Codiaeum Moluccanum* *Decaisne*  
 var. 191. *Rottlera* sp. ? 192. *Glochidion* sp. 193. *Melanthesa* sp.

## ARTOCARPEÆ.

- 194—195. *Ficus* sp. 6. 196. *Cudranus* sp. 197. *Artocarpus incisa*  
*L.*

## URTICACEÆ.

198. *Pipturus velutinus* *Wedd.*

## GNETACEÆ.

199. *Gnetum latifolium* *Bl.*

<sup>5</sup> In D'Albertis' collection there is but one small specimen of the bark of this Laurinea, which is highly aromatic, and in great request by the Malays as an article of commerce. I have been obliged to find a new generic name for this plant, which it is a positive error to call a *Cinnamomum*, or a *Sassafras*, as has hitherto been the case, both flowers and fruit having been unknown. From an examination of imperfect specimens, it appears to me that the flowers are those of a *Cryptocarya*, and that the fruit resembles that of the Madagascar *Ravensara*, from which it differs only by the imperfect development of the dissepiments, the seeds having the appearance of being entirely ruminated. The name of *Massoia* I derive from *Massoi*, the Malay name of the plant, and although there is already a *Massowia* among the *Araceæ*, I do not think that the similarity of name can lead to any confusion.

## PODOCARPEÆ.

200. *Podocarpus latifolia* Wall.

## CYCADEÆ.

201. *Cycas Papuana* F. v. M. 202. *C. Rumphii* Miq.

## PIPERACEÆ

203. *Chavica* sp. 204. *Cubeba* sp.

## PALMÆ.

205. *Licuala Aruensis* Becc. 206. *Calamus* sp. 207. *Kenthia Wendlandiana* F. v. M. 208. *Linospadix* sp. n. 209. *Arenga saccharifera* La Bill. 210. *Caryota Rumphiana* Mart. 211. *Caryota* sp. 212. *Ptychosperma paradoxa* Scheff. 213. *P. Normanbyi* F. v. M.? 214. *Sagus Rumphii* Willd. 215. *Areca macrocalyx* Zipp. 216. *Cocos nucifera* L.

## PANDANACEÆ.

217. *Pandanus* sp. 218. *Freycinetia insignis* Bl. 219. *F. Gaudichaudii* R. Brown.

## AROIDÆ.

220. *Alocasia* (*Schizocasia* Schott.) *Portei* Engl. et Becc. 221. *Colocasia antiquorum* Schott? 222. *Cyrtosperma* sp. n. 223. *Cyrtosperma* sp. 224. *Scindapsus sylvestris* Kth.? 225. *S. giganteus* Schott? 226. *Epipremnum* sp. 227. *Pothos Rumphii* Kunth. 228. *Pothos* sp.

## CANNACEÆ.

229. *Phrynium* sp. 230. *Marantha dichotoma* Wall.

## ZINZIBERACEÆ.

231. *Costus* sp. 232, 235. *Alpinia* sp. 4.

## ORCHIDÆ.

236. *Dendrobium undulatum* v. *Albertisianum* F. v. M. 237. *D. D'Albertisii* Reich. 238, 239. *Den-*

- drobium* sp. 2. 240. *Calanthe veratrifolia* R. Br. 241, 242. *Orchideæ* 2 in imperfect condition.

## AMARYLLIDÆ.

243. *Eurycles sylvestris* Salisb.

## HYDROCHARIDÆ.

244. *Hydrocharis Morsus Ranae* L.

## LILIACEÆ.

245. *Smilax* sp. 246. *Flagellaria* sp. n. 247. *Dracaena angustifolia* Roxb. 248. *D. terminalis* L. 249. *Schelhammera multiflora* R. Br.

## COMMELINÆ.

250. *Polia* sp.

## CYPERACEÆ.

251. *Cyperus distans* L. 252. *Cyperus* sp. 253. *Scleria* sp. 254. *Kyllingia monocephala* Kunth. 255. *Hypolytrum* sp.

## GRAMINACEÆ.

256. *Panicum compositum* L. 257. *Paspalum longifolium* Roxb. 258. *Coix Lacryma Jobi* L. 259. *Phragmites communis* Trin. 260. *Leptaspis Banksii* R. Br.

## FILICES.

261. *Gleichenia Hermannii* R. Br. 262. *Cyathea* sp. 263. *Alsophila intermedia* Mitt. 264. *Dicksonia delicata* F. v. M. 265. *D. Papuana* F. v. M. 266. *Davallia elata* Sw. 267. *D. Blumeana* Hook. 268. *Lindsaya pectinata* Bl. 269. *L. lobata* Poir. 270. *Pteris semipennata* L. 271. *Iomaria euphlebia* Kunze. 272. *Blechnum orientale* L. 273. *Asplenium falcatum* Lam. 274. *A. lunulatum* Sw. 275. *A. laserpitifolium* Lam. 276. *A. laserpitifolium* Lam. var. 277. *A. cicutarium* Swartz. 278. *A. esculentum* Presl. 279. *A. speciosum* Mett.

280. *A. scolopendroides* n. *I. Smith*.  
 281. *Aspidium acutum* *Schkuhr*.  
 282. *A. ramosum* *Beauv.* 283. *Nephrolepis acuta* *Presl*. 284. *Polypodium* *Dipteris* *Bl.* 285. *P. heracleum* *Kunze*. 286. *P. Musæfolium* *Bl.* 287. *P. linguiforme* *Mett.* 288. *P. decorum* *Brak.* 289. *P. albosquamatum* *Bl.* 290. *P. proliferum* *Roxb.* 291. *P. phymatodes* *L.* 292. *P. subdigitatum* *Bl.* 293. *P. Linnæi*. *Bory.* 294. *P. nigrescens* *Bl.* 295. *P. irregulare* *Presl*. 296. *P. acrostichoides* *R. Brown.* 297—299. *Polypodium* sp. 3. 300. *Anthrophyum reticulatum* *Kaulf.* 301. *Vittaria elongata* *Sw.* 302. *Acrostichum drynaroides* *Hook.* var. *sessilis*. 303. *Schizaea Forsterii* *Spr.* 304. *Lygodium japonicum* *Sw.* 305. *Lygodium* sp. 306. *Helminthostachys Zeilanica* *Kaulf.* 307—309. *Filices indeterminatæ* sp. 3.

## LYCOPODIACEÆ.

310. *Lycopodium Phlegmaria* *L.*  
 311. *L. cernuum* *L.* 312. *Selaginella caudata* *Spring.* 313. *S. flabelata* *Spring.* 314. *S. caulescens* *Spring.*

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In addition to the above-named plants, there are in the D'Albertis collection four species of Dicotyledon plants, none of which are known to me, and fruits and seeds of various species of *Myristica*, *Elæocarpus*, *Anonaceæ*, and *Laurineæ*, which I cannot determine, from the specimens of the leaves, whether they belong to the species already represented in the catalogue.

There are also about twenty specimens of other fruits and seeds, which at present I am unable to classify.



# CATALOGUE OF BIRDS COLLECTED IN NEW GUINEA (S.E.) IN THE YEAR 1875.

*The species marked \* were new.*

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|---|---|
| <p>SP.</p> <ol style="list-style-type: none"> <li>1. <i>Cuncuma leucogaster</i> (Gm.).</li> <li>2. <i>Haliasturgirrenera</i> (Vieill.).</li> <li>3. <i>Haliastur sphenurus</i> (Vieill.).</li> <li>4. <i>Milvus affinis</i> (Gould.).</li> <li>5. <i>Harpyopsis novæ guineæ</i> (Salvad.).</li> <li>6. <i>Megatriorchis doriæ</i> (Salvad. &amp; D'Alb., nov. sp.).*</li> <li>7. <i>Urospizias etorques</i> (Salvad.).</li> <li>8. <i>Urospizias cruentus</i> (Gould.).?</li> <li>9. <i>Circus spilothorax</i> (Salvad. &amp; D'Alb., nov. sp.).*</li> <li>10. <i>Ninox assimilis</i> (Salvad. &amp; D'Alb., nov. sp.).*</li> <li>11. <i>Cacatua triton</i> (Temm.).</li> <li>12. <i>Eclectus polychlorus</i> (Scop.).</li> <li>13. <i>Cyclopsittacus suavissimus</i> (Sclat.).</li> <li>14. <i>Cyclopsittacus melanogenys</i> (Rosenb.).</li> <li>15. <i>Cyclopsittacus cervicalis</i> (Salvad. &amp; D'Alb.).*</li> <li>16. <i>Chalcopsittacus scintillatus</i> (Temm.).</li> <li>17. <i>Trichoglossus massena</i> (Bp.).</li> <li>18. <i>Psitteuteles subplacens</i> (Sclat.).*</li> <li>19. <i>Geoffroyus aruensis</i> (G. R. Gr.).</li> <li>20. <i>Lorius lory</i> (Linn.).</li> <li>21. <i>Charmosyna</i> (?) <i>pulchella</i> (G. R. Gr.).</li> <li>22. <i>Eudynamis cyanocephala</i> (Lath.).</li> <li>23. <i>Lamprocoeyx lucidus</i> (Gm.).</li> </ol> | <p>SP.</p> <ol style="list-style-type: none"> <li>24. <i>Nesocentor menebeki</i> (Less.).</li> <li>25. <i>Polophilus nigricans</i> (nov. sp., Salv.).*</li> <li>26. <i>Scythrops novæ hollandiæ</i> (Lath.).</li> <li>27. <i>Rhytidoceros ruficollis</i> (Vieill.).</li> <li>28. <i>Merops ornatus</i> (Lath.).</li> <li>29. <i>Eurystomus crassirostris</i> (Sclat.).?</li> <li>30. <i>Dacelo intermedius</i> (nov. sp.).</li> <li>31. <i>Sauromarptis gaudichaudii</i> (Q. &amp; G.).</li> <li>32. <i>Sauropatis sordida</i> (Gould.).</li> <li>33. <i>Sauropatis sancta</i> (V. &amp; H.).</li> <li>34. <i>Alcyon lessoni</i> (Cass.).</li> <li>35. <i>Cyanalcyon stictolæma</i> (nov. sp., Salv.).*</li> <li>36. <i>Cyanalcyon macleayi</i> (J. &amp; S.).</li> <li>37. <i>Syma torotoro</i> (Less.).</li> <li>38. <i>Tanysiptera galatea</i> (G. R. Gr., var. minor).</li> <li>39. <i>Tanysiptera sylvia</i> (Gould.).?</li> <li>40. <i>Podargus papuensis</i> (Q. &amp; G.).</li> <li>41. <i>Podargus ocellatus</i> (Q. &amp; G.).</li> <li>42. <i>Ægotheles bennetti</i> (Salvad. &amp; D'Alb.).*</li> <li>43. <i>Caprimulgus macrurus</i> (Horsf.).</li> <li>44. <i>Hirundo javanica</i> (Sparrm.).</li> <li>45. <i>Peltops blainvillei</i> (Less. &amp; Garn.).</li> <li>46. <i>Myiagra concinna</i> (Gould.).</li> <li>47. <i>Microeca flavovirescens</i> (G. R. Gr.).</li> </ol> |
|---|---|

- SP.  
 48. *Microeca flavigaster* (Gould.).  
 49. *Monarcha carinatus* (V. & H.).  
 50. *Monarcha guttulatus* (Garn.).  
 51. *Monarcha dichrous* (G. R. Gr.).  
 52. *Monarcha chalybeocephalus* (Garn.).  
 53. *Arses telescopthalmus* (Garn.).  
 54. *Sauloprocta tricolor* (Vieill.).  
 55. *Rhipidura gularis* (Müll.).  
 56. *Rhipidura leucothorax* (Salvad.).  
 57. *Rhipidura maculipectus* (G. R. Gr.).  
 58. *Gerygone magnirostris* (Gould.) ?  
 59. *Gerygone chrysogaster* (G. R. Gr.).  
 60. *Todopsis* sp.  
 61. *Graucalus melanops* (Lath.).  
 62. *Graucalus angustifrons* (Sharpe).  
 63. *Ptiladela boyeri* (G. R. Gr.).  
 64. *Lalage karu* (Less. & Garn.).  
 65. *Edoliisoma plumbea* (Müll.) ?  
 66. *Edoliisoma melas* (S. Müll.).  
 67. *Campophaga* (?) *sloetii* (Schleg.).  
 68. *Dicrurus carbonarius* (S. Müll.).  
 69. *Artamus leucogaster* (Valenc.).  
 70. *Pachycephala leucogastra* (Salv. & D'Alb., n. sp.)\*.  
 71. *Pachycephala melanura* (Gould.).  
 72. *Pachycephala griseiceps* (G. R. Gr.).  
 73. *Colluricincla brunnea* (Gould.) ?  
 74. *Colluricincla megarhyncha* (Q. and G.).  
 75. *Rectes ferruginea* (Bp.).  
 76. *Rectes dichroa* (Bp.).  
 77. *Cracticus cassicus* (Bodd.).  
 78. *Cracticus mentalis* (Salvad. & D'Alb., nov. sp.)\*.  
 79. *Cyrtostomus frenatus* (S. Müll.).
- SP.  
 80. *Hermotimia* sp.  
 81. *Myzomela erythrocephala* (Gould.).  
 82. *Myzomela rosenbergii* (Schleg.).  
 83. *Myzomela obscura* (Gould.).  
 84. *Ptilotis analoga* (Rchb.) ?  
 85. *Ptilotis albonotata* (nov. sp., Salv. & D'Alb.)\*.  
 86. *Xanthotis filigera* (Gould.).  
 87. *Tropidorhynchus novæ guineæ* (S. Müll.).  
 88. *Conopophila albogularis* (Gould.).  
 89. *Eopsaltria leucura* (Gould.).  
 90. *Euthyrhynchus* sp.  
 91. *Pycnonotus* (?) *stictiocephalus* (nov. sp., D'Alb. & Salv.)\*.  
 92. *Pomatorhinus isidorii* (Less.).  
 93. *Dicaeum rubro-coronatum* (Sharpe).  
 94. *Sphenoeacus macrurus* (nov. sp., D'Alb. & Salv.)\*.  
 95. *Cisticola* sp.  
 96. *Malurus alboscapulatus* (Meyer).  
 97. *Pitta novæ guineæ* (S. Müll. & Schleg.).  
 98. *Eupetes nigricrissus* (nov. sp., Salv. & D'Alb.)\*.  
 99. *Munia caniceps* (nov. sp., Salv. & D'Alb.)\*.  
 100. *Calornis cantoroides* (G. R. Gr.).  
 101. *Calornis metallica* (Temm.).  
 102. *Mino dumontii* (Less.).  
 103. *Mimeta striata* (Q. & G.).  
 104. *Chlamydodera cerviniventris* (Gould.).  
 105. *Corvus orru* (Müll.).  
 106. *Manucodia atra* (Less.).  
 107. *Manucodia keraudrenii* (Less. & Garn.).  
 108. *Paradisea raggiana* (Sclat.).  
 109. *Cicinnurus regius* (Linn.).  
 110. *Myristicivora spilorrhoea* (G. R. Gr.).  
 111. *Carpophaga müllerii* (Temm.).  
 112. *Carpophaga zoeæ* (Less.).  
 113. *Carpophaga pinon* (Q. & G.).

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| <p>SP.<br/> 114. <i>Megaloprepia assimilis</i> (Gould.).<br/> 115. <i>Ptilonopus coronulatus</i> (G. R. Gr.).<br/> 116. <i>Ptilonopus pulchellus</i> (Temm.).<br/> 117. <i>Ptilonopus superbus</i> (Temm.).<br/> 118. <i>Ptilonopus aurantiifrons</i> (G. R. Gr.).<br/> 119. <i>Ptilonopus gestroi</i> (D'Alb. &amp; Salvad., nov. sp.).*<br/> 120. <i>Ptilonopus ionozonus</i> (G. R. Gr.).<br/> 121. <i>Reinwardtoena reinwardtii</i> (Temm.).<br/> 122. <i>Chalcophaps stephani</i> (Pucher. &amp; Jacq.).<br/> 123. <i>Chalcophaps chrysochlora</i> (Wagl.).<br/> 124. <i>Chalcophaps margarithæ</i> (D'Alb. &amp; Salv., n. sp.).*</p> | <p>SP.<br/> 125. <i>Geopelia humeralis</i> (Temm.).<br/> 126. <i>Geopelia tranquilla</i> (Gould.).<br/> 127. <i>Henicophaps albifrons</i> (G. R. Gr.).<br/> 128. <i>Goura albertisii</i> (Salvad.).*<br/> 129. <i>Megapodius duperreyi</i> (Less.).<br/> 130. <i>Talegallus fuscirostris</i> (Salvad.).<br/> 131. <i>Orthorhamphus magnirostris</i> (Geoffr.).<br/> 132. <i>Numenius uropygialis</i> (Gould.).<br/> 133. <i>Porphyrio melanonotus</i> (D'Alb.).<br/> 134. <i>Gallinula frontata</i> (Wall.).<br/> 135. <i>Dendrocygna guttata</i> (Forsten).<br/> 136. <i>Dendrocygna vagans</i> (Eyton).<br/> 137. <i>Podiceps gularis</i> (Gould.).<br/> 138. <i>Sterna poliocerca</i> (Gould.).</p> |
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CATALOGUE OF BIRDS COLLECTED DURING  
THE EXPLORATION OF THE FLY RIVER,  
1876—1877.

(L. M. D'ALBERTIS AND SALVADORI.)

*The species marked \* were new.*

SP.

1. Pandion leucocephalus (Gould.).
2. Haliastur girrenera (Vieill.).
3. Haliastur spheurnus (Vieill.).
4. Henicopernis longicauda (Garn.).
5. Baza reinwardtii (Müll. & Schleg.).
6. Harpyopsis novæ guineæ (Salvad.).
7. Urospizias poliocephalus (Gray.).
8. Cacatua triton (Temm.).
9. Nasiterna keiensis (Salvad.).
10. Aprosmictus callopterus (nov. sp., D'Alb. & Salv.).\*
11. Cyclopsittacus cervicalis (Salvad. & D'Alb.).\*
12. Cyclopsittacus aruensis (Schleg.).
13. Cyclopsittacus melanogenys (Rosenb.).
14. Geoffroyus aruensis (G. R. Gr.).
15. Eclectus polychlorus (Scop.).
16. Dasyptilus pesqueti (Less.).
17. Eos fuscata (Blyth.).
18. Chalcopsittacus scintillatus (Temm.).
19. Lorius erythrothorax (Salvad.).
20. Trichoglossus cyanogrammus (Wagl.).
21. Trichoglossus nigricularis (G. R. Gr.).
22. Trichoglossus cæruleiceps (nov. sp., D'Alb. & Salv.).\*

SP.

23. Coriphilus placens (Temm.).
24. Cuculus canoroides (S. Müll.)?
25. Cacomantis tymbonomus (S. Müll.)?
26. Lamprocyx plagosus (Lath.).
27. Caliechthrus leucolophus (S. Müll.).
28. Eudynamis cyanocephala (Lath.).
29. Nesocentor menebeki (Garn.).
30. Polophilus bernsteinii (Schleg.).
31. Rhitidoceros plicatus (Penn.).
32. Merops ornatus (Lath.).
33. Alcyon lessoni (Cass.).
34. Alcyon pusilla (Temm.).
35. Ceyx solitaria (Temm.).
36. Tanyptera galatea (G. R. Gr., var. minor).
37. Tanyptera hydrocharis (Gray.).
38. Cyanalcyon macleayi (J. & S.).
39. Cyanalcyon stictolæma (Salvad.).\*
40. Sauroptis sordida (Gould.).
41. Sauroptis sancta (V. & H.).
42. Syma torotoro (Less.).
43. Sauromarptis gaudichaudi (Q. & G.).
44. Eurystomus pacificus (Lath.).
45. Podargus papuensis (Q. & G.).
46. Podargus ocellatus (Q. & G.).
47. Eurostopus albugularis (V. & H.).

SP.

48. *Macropteryx mystaceus* (Less.).
49. *Chætura novæ guineæ* (nov. sp., *D'Alb. & Salv.*).\*
50. *Peltops blainvillei* (Less. & Garn.).
51. *Monarcha carinatus* (Vig. & Horsf.).
52. *Monarcha guttulatus* (Garn.).
53. *Monarcha aruensis* (Salvad.).
54. *Monarcha chalybeocephalus* (Garn.).
55. *Arses aruensis* (Sharpe).
56. *Monachella saxicolina* (Salvad.).
57. *Sauloprocta melaleuca* (Q. & G.).
58. *Rhipidura leucothorax* (Salvad.).
59. *Rhipidura setosa* (Q. & G.).
60. *Rhipidura rufifrons* (Lath.).
61. *Myiagra latirostris* (Gould.).
62. *Myiagra concinna* (Gould.)?
63. *Machærorhynchus xanthogenys* (G. R. Gr.).
64. *Todopsis bonapartei* (Gray).
65. *Todopsis wallacei* (G. R. Gr.).
66. *Gerygone chrysogaster* (G. R. Gr.).
67. *Gerygone brunneipectus* (Sharpe).
68. *Gerygone personata* (Gould.).
69. *Graucalus cæruleogriseus* (G. R. Gr.).
70. *Graucalus subalaris* (Sharpe).
71. *Edoliosoma melas* (S. Müll.).
72. *Edoliosoma mülleri* (Salv.).
73. *Lalage karu* (Less.).
74. *Campochæra sloetii* (Schleg.).
75. *Dicruroopsis bracteata* (Gould.).
76. *Dicruroopsis carbonaria* (Bp.).
77. *Artamus leucogaster* (Vahlenc.).
78. *Cracticus cassicus* (Bodd.).
79. *Rectes ferruginea* (Bp.).
80. *Rectes dichroa* (Bp.).
81. *Rectes brunneiceps* (nov. sp., *D'Alb. & Salv.*).\*
82. *Colluricincla megarhyncha* (Q. & G.).
83. *Pachycephala griseiceps* (G. R. Gr.).

SP.

84. *Hermotimia aspasia* (Less.).
85. *Cyrtostomus frenatus* (S. Müll.).
86. *Melanocharis chloroptera* (Salvad.).
87. *Dicaeum rubrigulare* (nov. sp., *D'Alb. & Salv.*).\*
88. *Dicaeum albo-punctatum* (nov. sp., *D'Alb. & Salv.*).\*
89. *Myzomela nigrata* (G. R. Gr.).
90. *Myzomela erythrocephala* (Gould.)?
91. *Myzomela eques* (Less.).
92. *Myzomela obscura* (Gould.).
93. *Glyciphila modesta* (G. R. Gr.).
94. *Conopophila albigularis* (Gould.).
95. *Glycichaera fallax* (Salvad.).
96. *Melilestes novæ guineæ* (Less.).
97. *Melilestes megarhynchus* (Gray).
98. *Ptilotis notata* (Gould.).
99. *Ptilotis versicolor* (Gould.).
100. *Xanthotis polygramma* (G. R. Gr.).
101. *Xanthotis filigera* (Gould.).
102. *Philemon meyeri* (Salvad.).
103. *Tropidorhynchus novæ guineæ* (S. Müll.).
104. *Pomatorhinus isidori* (Less.).
105. *Pitta simillima* (Gould.).
106. *Pitta mackloti* (Temm.).
107. *Pitta novæ guineæ* (Müll.).
108. *Cinclosoma ajax* (Temm.).
109. *Eupetes nigririssus* (Salvad.).
110. *Poodytes albo-limbatus* (*D'Alb. & Salvad.*, nov. sp.).\*
111. *Munia leucosticta* (*D'Alb. & Salvad.*, nov. sp.).\*
112. *Neochmia phaeton* (Hombr. & Jacq.)?
113. *Calornis metallica* (Temm.).
114. *Melanopyrrhus orientalis* (Schleg.).
115. *Mino dumontii* (Less.).
116. *Mimeta striata* (Q. & G.).
117. *Manucodia chalybeata* (Penn.).
118. *Manucodia atra* (Less.).

- SP.  
 119. *Manucodiakeraudrenii* (Less. & Garn.).  
 120. *Paradisea novæ guineæ* (D'Alb. & Salvad.).\*  
 121. *Paradisea raggiana* (Sclat.).  
 122. *Craspedophora magnifica* (Vieill.).  
 123. *Seleucides ignota* (Forst.).  
 124. *Cicinnurus regius* (Linn.).  
 125. *Xanthomelus aureus* (Linn.)?  
 126. *Æluroedus melanotis* (G. R. Gr.).  
 127. *Æluroedus buccoides* (Temm.).  
 128. *Ptilopus nanus* (Temm.).  
 129. *Ptilopus zonurus* (Salvad.).  
 130. *Ptilopus gestroi* (D'Alb. & Salvad.).\*  
 131. *Ptilopus aurantiifrons* (G. R. Gr.).  
 132. *Ptilopus humeralis* (Wall.).  
 133. *Ptilopus iozonus* (G. R. Gr.).  
 134. *Ptilopus coronulatus* (G. R. Gr.).  
 135. *Ptilopus pulchellus* (Temm.).  
 136. *Ptilopus superbus* (Temm.).  
 137. *Megaloprepia poliura* (Salvad.).  
 138. *Carpophaga zoeæ* (Less.).  
 139. *Carpophaga rufiventris* (Salvad.).  
 140. *Gymnophaps albertisii* (Salvad.).  
 141. *Reinwardtoena reinwardtii* (Temm.).  
 142. *Macropygia doreya* (Bp.).  
 143. *Macropygia nigrirostris* (Salvad.).  
 144. *Phlogoenas helviventris* (Rosenb.).  
 145. *Chalcophaps stephani* (Pucher. & Jacq.).

- SP.  
 146. *Henicophaps albifrons* (G. R. Gr.).  
 147. *Eutrygon terrestris* (G. R. Gr.).  
 148. *Goura selateri* (Salvad.).\*  
 149. *Megapodius duperreyi* (Less. & Garn.).  
 150. *Talegallus fuscirostris* (Salvad.).  
 151. *Lobivanellus miles* (Bodd.).  
 152. *Hæmatopus longirostris* (Vieill.).  
 153. *Actitis hypoleucos* (Linn.).  
 154. *Gymnocrex plumbeiventris* (G. R. Gr.).  
 155. *Rallina tricolor* (G. R. Gr.).  
 156. *Ortygometra cinerea* (Vieill.).  
 157. *Megacrex inepta* (D'Alb. & Salvad., nov. sp.).\*  
 158. *Ardea picata* (Gould.).  
 159. *Ardea sacra* (Gm.).  
 160. *Ardetta javanica* (Horsf.).  
 161. *Ardetta flavicollis* (Lath.).  
 162. *Tigrisoma heliosylos* (Less.).  
 163. *Nycticorax caledonicus* (Gm.).  
 164. *Nettapus pulchellus* (Gould.).  
 165. *Dendrocygna vagans* (Eyton.).  
 166. *Dendrocygna guttata* (Forsten.).  
 167. *Pelecanus conspicillatus* (Temm.).  
 168. *Graculus melanoleucus* (Vieill.).  
 169. *Plotus melanogaster* (Gm.).  
 170. *Fregata aquila* (Linn.).  
 171. *Puffinus sphenurus* (Gould.).  
 172. *Prion turtur* (Gould.)?  
 173. *Casuarius beccarii* (Sclat.).

## APPENDIX.

*Species observed, but not collected.*

- |   |  |
|---|--|
| 174. <i>Cuncuma leucogaster</i> (Gm.).    | 178. <i>Carpophaga spilorrhoea</i> (Gray).             |
| 175. <i>Microglossum aterrimum</i> (Gm.). | 179. <i>Chalcophaps margarithæ</i> (D'Alb. & Salvad.). |
| 176. <i>Gymnocorvus senex</i> (Less.).    | 180. <i>Mycteria australis</i> (Lath.).                |
| 177. <i>Carpophaga mülleri</i> (Temm.).   | 181. <i>Plegadis falcinellus</i> (Linn.).              |
|   | 182. <i>Ibis strictipennis</i> (Gould.).               |







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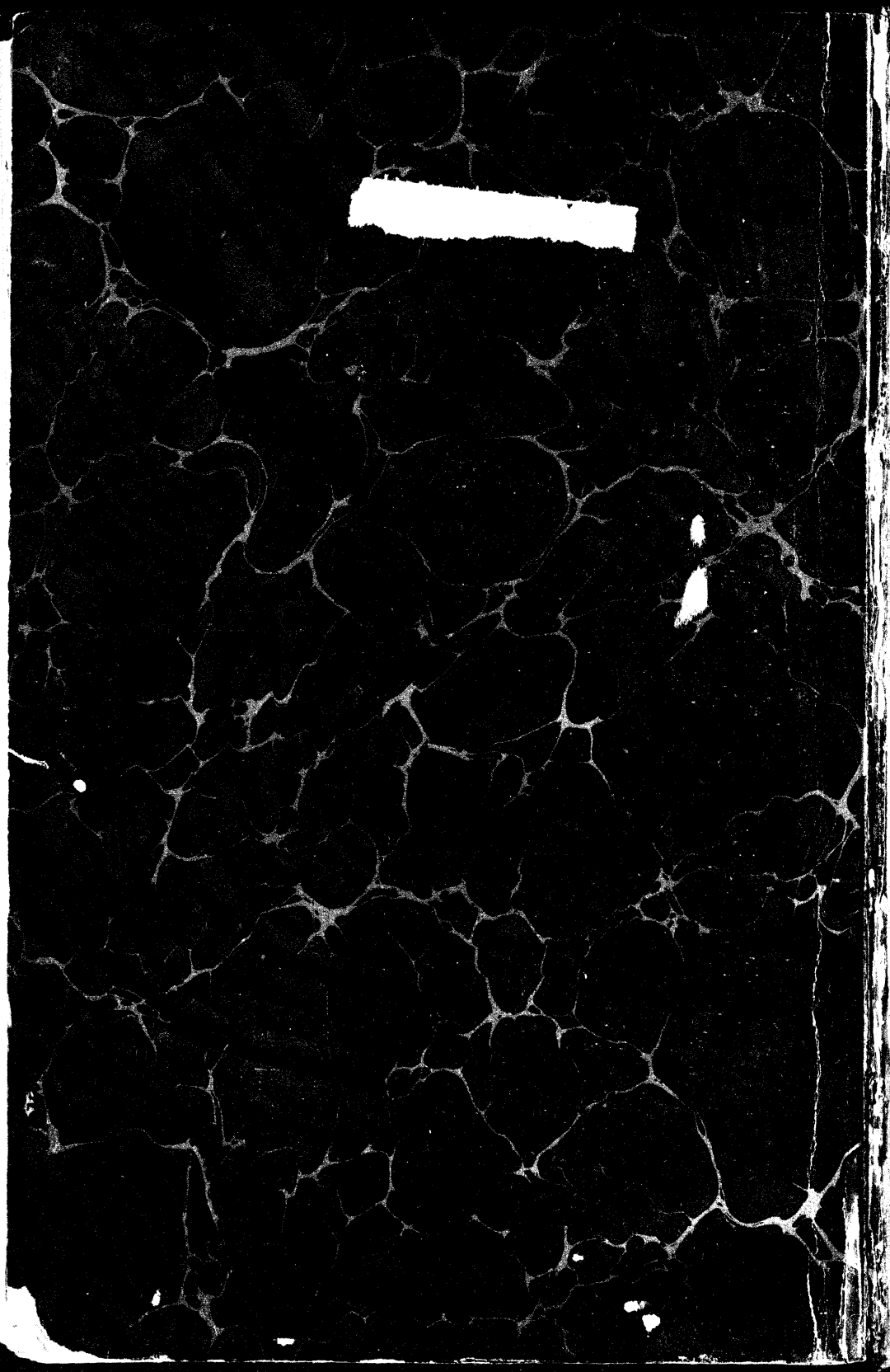
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